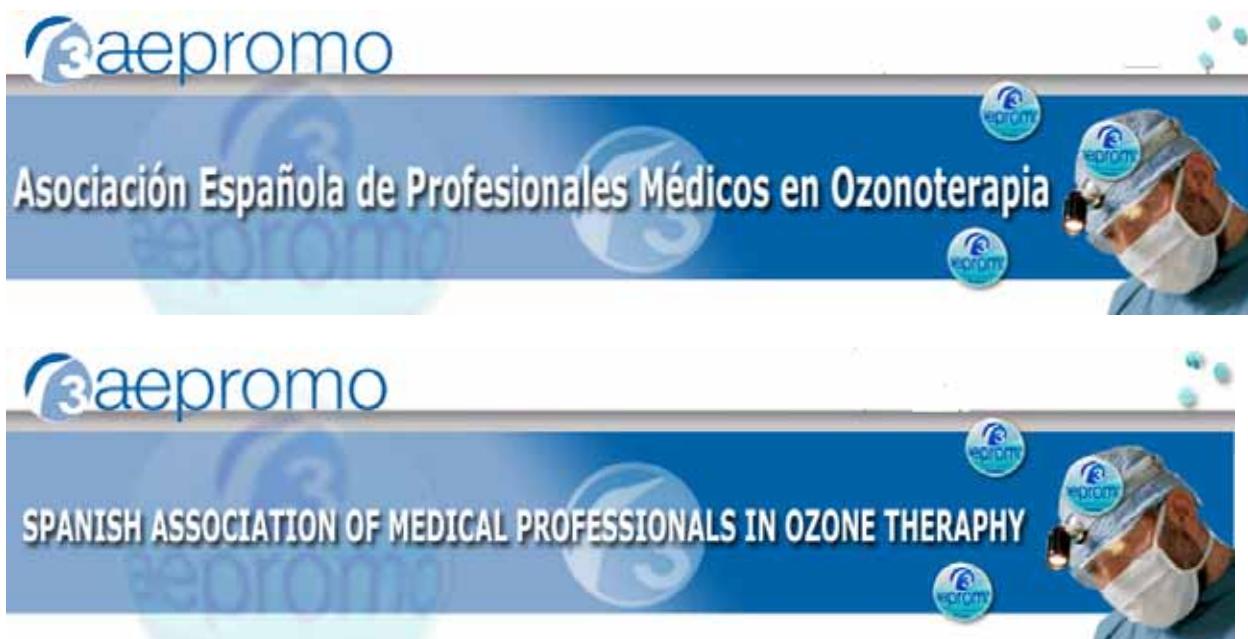


III International Congress of AEPROMO



7th -9th June, 2012. Complutense University of Madrid, Spain.

Abstract Book

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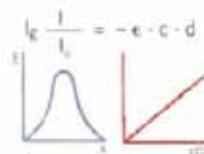
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HANSLER

Dr. J. Hänsler GmbH, Nordring 8 D-76473 Iffezheim, Germany
Phone: +49 7229 3046-0 Fax: +49 7229 3046-30
[www.ozonosan.de info@ozonosan.de](mailto:info@ozonosan.de)

DR. HÄNSLER OZONOSAN



EVOZONE

Evozone GmbH, medical
Herderstr. 55. 72762 Reutlingen, Germany
info@evozone.esinfo@evozone.de
Skype: evozone.spain Telfn. +34 685 330 312
Phone: +49 7121 260912 Fax: +49 7121 260913
<http://www.evozone.de> <http://www.evozone.es/>



MEDOZONO

MEDOZONO S.L., BARCELONA
Tel. +34 93 750 7331
E-mail: mensajes@medozono.com
España



ULTRAVIOLET PURE

Jonathan Lowe, Ultraviolet Pure
Tel: (517) 925.1064 | Mobile: (517) 706.7273
Jon@ultravioletpure.com www.ultravioletpure.com
United States of America

OZONLINEA

José angel Serrano

Agente commercial y servicio técnico

joseangelserrano@telefonica.net

Zaragoza, España Tel. (+34) 653 472 200



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Preface

The 3rd. International Congress of AEPROMO "The Ozone Therapy in the Medical Agenda" is a major new step forward of the many that our organization has been doing in favor of the ozone therapy. After creating AEPROMO in 2008, we organized the first international congress in 2009. This event had a significant impact because we do it after getting from the Madrid Regional Ministry of Health the withdrawal of the ban of the practice of ozone therapy in outpatient clinics. In addition the Regional Ministry authorized its practice and spelled out the requirements to be practiced. The Congress of Pontevedra in 2009 has been an important milestone for three reasons: The ozone therapy in Spain began to be regularized by health authorities; for the first time a congress of ozone therapy received the title of "Health Interest"; and finally because we managed to assemble in Pontevedra leading figures from the ozone therapy world to share their experiences and pass on knowledge.

A qualitative improvement of enormous significance took place at the 2nd. International Congress of AEPROMO in 2010: The "International Meeting of Schools of Ozone Therapy" held in Madrid, at the Royal Academy of Medicine. Qualitative improvement because it was the first time that the ozone therapy reached the ancient walls of the Royal Academy of Medicine; for the first time in the history of the global ozone therapy different schools, at the AEPROMO initiative, agreed on a dense framework document for the use of the medical ozone. The Document named was "The Madrid Declaration on ozone therapy." Today is the reference document for the vast majority of ozonetherapists in the world, having the support of 26 national and international associations of ozone therapy and it has been translated into ten languages.

This congress laid the groundwork for the creation in October 2010 of the International Scientific Committee of the Ozone Therapy (ISCO3). This committee has, among its work descriptions, to update, when necessary, the Madrid Declaration on Ozone Therapy. So the Declaration is a living document and of permanent reference.

The 3rd. International Congress will continue walking the same path set by the two previous ones. We will keep the organizational criterion to carry out these events in academic centers or in universities, to obtain more presence and strength in places where before, and even today, are reluctant to ozone therapy. We have transformed what used to be perceived as a problem into a challenge! Therefore, our decision to hold the 3rd. International Congress at the Faculty of Medicine of the Madrid Complutense University, one of the most important high study centers of the Spanish-speaking countries.

As in the two previous occasions, the Congress has been awarded by the health authorities with the title of "Health Interest." The congress is held having the scientific back up of the recently book issued by AEPROMO: "Guide for the medical use of ozone - Therapeutic fundamentals and indications" written by a research team led by Dr. Adriana Schwartz, President of AEPROMO. It is the most complete publication on ozone therapy written in Spanish.

We are approaching the congress with the enormous satisfaction of having achieved that 14 out of 17 Spanish states, have accepted the request of AEPROMO, to regularize the ozone therapy within their respective jurisdictions. We arrive to the congress with the joy of accomplishment to have effectively

III International Congress of AEPROMO

"The ozonotherapy in the medical agenda"

Spanish Association of Medical Professionals in Ozone Therapy

contributed to the revival and strengthening of the International Medical Ozone Federation (IMEOF), integrated by 13 national associations from around the world.

We write down these lines seven weeks before the congress opening. Right now the registration is closed to the pre-congress course "Discolysis: Practice on cadavers and simulators. Ozone injections in pain clinic." Again as in previous years and well before we were obliged to hang the sign "sold out".

In this Special Supplement of the Spanish Journal of Ozone Therapy the reader will find abstracts of all presentations and posters of the congress, the CV of all the speakers, members of the Scientific and Organizing Committees, and the names and addresses of the sponsors of international congress.

The congress is already underway. It is up to the speakers to explain their researches and share their clinical experiences. It is up to the participants to absorb the knowledge and to ask every subject, which has not been enough clarified and the current doubts. Let everyone make the most of the time to exchange experiences, to establish new contacts, to expand professional horizons and dive deep into one of the most beneficial therapies for patients discovered so far.

As organizers we hand over the baton and from now on the protagonists of the congress will be the speakers and participants!

Madrid, April 22, 2012.

Welcome all!

Organizing Committee.

Prefacio

El 3er. Congreso Internacional de AEPROMO "La ozonoterapia en la agenda médica" constituye un nuevo gran paso hacia delante, de los muchos que nuestra asociación ha venido dando a favor de la terapia del ozono.

Después de la creación de AEPROMO en el 2008, nos lanzamos al primer congreso internacional en el 2009. Éste tuvo un impacto significativo porque lo realizamos tras lograr que la Comunidad de Madrid levantara la prohibición que pesaba contra la práctica de la ozonoterapia en centros ambulatorios. Además autorizó su práctica y detalló por escrito los requisitos para que se pudiera realizar. El congreso de Pontevedra del 2009 marcó un hito importante por tres razones: La ozonoterapia en España comenzó a ser regulada por las autoridades sanitarias; por primera vez un congreso de ozonoterapia recibía el título de "Interés Sanitario"; y finalmente porque logramos convocar importantes personalidades del mundo de la ozonoterapia en Pontevedra para que compartieran experiencias y transmitieran conocimientos.

Un avance cualitativo de enorme significado tuvo lugar en el 2do. Congreso Internacional de AEPROMO en 2010: "Encuentro Internacional de Escuelas de Ozonoterapia", realizado en Madrid, en la Real Academia Nacional de Medicina. Avance cualitativo porque la ozonoterapia por primera vez llegaba a los centenarios muros de la Real Academia; por primera vez en la historia de la ozonoterapia mundial las diferentes escuelas, a iniciativa de AEPROMO, se pusieron de acuerdo en un denso documento marco para la utilización del Ozono médico. Documento bautizado "Declaración de Madrid sobre la Ozonoterapia". Hoy en día es el documento de referencia para la inmensa mayoría de ozonoterapeutas en el mundo, teniendo el respaldo de 26 asociaciones nacionales e internacionales de ozonoterapia y estando traducido a diez idiomas diferentes.

En este congreso se sentaron las bases para la creación en octubre de 2010 del International Scientific Committee of Ozone Therapy (ISCO3) que justamente tiene dentro de sus funciones el actualizar, cuando sea necesario, la Declaración de Madrid sobre la Ozonoterapia. De esta forma la Declaración es un instrumento vivo y de referencia permanente.

El 3er. Congreso continuará transitando el mismo camino marcado por los dos congresos anteriores. Perseveramos en el criterio organizativo de realizar estos eventos en centros académicos o en universidades, para así lograr tener más presencia y fortaleza en los lugares donde con anterioridad, y aún hoy en día, se tienen reticencias a la ozonoterapia. ¡Hemos transformado lo percibido como un problema en un desafío! Por ello nuestra decisión de celebrar el congreso en la Facultad de Medicina de la Universidad Complutense de Madrid, uno de los más importantes centros de alto estudio de los países de habla castellana.

Como en las dos ocasiones anteriores el congreso vuelve a ser galardonado por las autoridades sanitarias con el título de "Interés Sanitario".

El congreso se realiza teniendo el respaldo científico del libro recientemente publicado por AEPROMO: "Guía para el uso médico del ozono - Fundamentos terapéuticos e indicaciones", escrito por un equipo

III International Congress of AEPROMO
"The ozonotherapy in the medical agenda"
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investigativo liderado por la Dra. Adriana Schwartz, Presidenta de AEPROMO. Es la obra más completa en ozonoterapia escrita en español.

Nos encaminamos hacia el congreso con la enorme satisfacción de haber logrado que 14 de las 17 comunidades españolas, hayan aceptado, a petición de AEPROMO, regularizar la práctica de la ozonoterapia dentro de sus respectivas jurisdicciones.

Llegamos al congreso con la alegría del deber cumplido al haber contribuido eficazmente al renacimiento y fortalecimiento de la *International Medical Ozone Federation* (IMEOF) integrada ya por 13 asociaciones nacionales de diferentes partes del mundo.

Escribimos estas líneas siete semanas antes de la inauguración del congreso. En este momento ya está cerrada la inscripción al curso precongreso "Discólisis: práctica en cadáveres y simuladores. Infiltraciones con ozono en clínica del dolor". Nuevamente como en cursos anteriores y con bastante anterioridad debemos colgar el cartel "no hay más cupos".

En este Suplemento Especial de la Revista Española de Ozonoterapia el lector encontrará los sumarios de todas las ponencias y posters del congreso, el CV de todos los ponentes, los integrantes de los Comités Científico y Organizador, así como los nombres y direcciones de los patrocinadores del evento.

El congreso ya está en marcha. Corresponde ahora a los ponentes explicar sus investigaciones y compartir sus experiencias clínicas. A los participantes les toca asimilar lo transmitido y preguntar lo no suficientemente aclarado y las duda existentes. Que todos aprovechen al máximo el tiempo para intercambiar experiencias, para establecer nuevos contactos, para ampliar horizontes profesionales y para sumergirse en profundidad en una de las terapias más beneficiosas para los pacientes descubiertas hasta ahora.

¡Los organizadores cedemos el testigo y ahora los protagonistas del congreso serán los ponentes y los participantes!

Madrid, 22 de abril de 2012.

Sean todos bienvenidos!

El comité organizador.

Conference Agenda Pre-congress workshop

Jueves, 7	Department of Anatomy 2, Faculty of Medicine, Madrid Complutense University. Moncloa Campus. Madrid (Spain). / Departamento de Anatomía 2. Facultad de Medicina, Campus Moncloa. Universidad Complutense de Madrid (España).
08:00-9:00	Registro <u>Discolysis: practice on cadavers and simulators. Infiltrations with ozone in pain.</u> <u>Discólisis: Práctica en Cadáveres y Simuladores. Infiltraciones con Ozono en Clínica del Dolor</u>
09:00 - 09:05	Introducción M.D. Adriana Schwartz Tapia (SAP). MD. Directora Clínica Fiorela, Madrid. Directora Científica Instituto Clínico Fiorela, San Pedro Sula (Honduras). Presidenta de AEPROMO. Presidenta de la Federación Internacional Médica de Ozono (IMEOF). Secretaria del Comité Internacional Científico de Ozonoterapia (ISCO3). Directora, Revista Española de Ozonoterapia.
09:05 - 9:35	Conferencia: Dr. Fernando Kirchner van Gelderen (SPA). MD. Traumatología. Director, Gabinet Mèdic Maresme, Caldes d'Estrac. Vocal de AEPROMO. Miembro del Comité Editorial, Revista Española de Ozonoterapia. Columna Vertebral. Anatomía. Generalidades diferencias entre columna cervical, dorsal y lumbar. Complejo Lumbo-Sacro y Sacro-Iliaco. Técnica de infiltración intra-discal en segmentos cervical y lumbar. Discólisis. Infiltraciones facetarias. Extremidad superior. Características anatómicas y su relación con los puntos de infiltración. Hombro, codo y muñeca.
9:35 - 9:50	Conferencia: Dr. José Germán Medina (VEN). MD. Máster en Salud Pública. Cirugía Espinal. Profesor, Universidad Central de Venezuela. Jefe de Trauma y Ortopedia, Hospital Vargas, Caracas. Secretario, de la Sociedad Venezolana de Ozonoterapia (SOVEOT). Técnica discólisis lumbar y cervical ilustración en video.
9:50 - 10:10	Dr. Joaquín Cabot Dalmaut (SPA). MD. Cirugía Ortopédica y Traumatología. Hospital Quirón. Vocal de AEPROMO. Miembro del Comité Editorial, Revista Española de Ozonoterapia. Infiltraciones por debajo de la columna. Regiones anatómicas: Pubis, cadera, rodilla, tibia, tobillo, pie.
10:10 - 10:30	Dra. Adriana Schwartz Tapia(SAP). Ozono y Factores de Crecimiento. Combinación de técnicas.
10:30 - 11:00	Pausa Café
11:00 - 14:00	Práctica 1: Prácticas en cadáveres y simulador dirigidas por: Dr. Joaquín Cabot Dalmaut(SPA) Dra. Adriana Schwartz Tapia (SPA) Dr. José Germán Medina(VEN) Dr. Juan López Laserna Ruiz (SPA) Dr. Fernando Kirchner van Gelderen (SPA) Dr. F. Javier Hidalgo Tallón (SPA)
14:00 - 15:00	Pausa Almuerzo. A cargo de cada participante. Pueden comer a precio módico en el Restaurante de los Estud. de la Fac. de Medicina.
15:00 - 20:00*	Práctica 2: Prácticas en cadáveres, simulador y estudiantes (Factores de Crecimiento Ozonizado. Autohemoterapia Mayor en bolsa y frasco. Demostración de la técnica en estudiantes voluntarios). Dirigidas por: Dr. Joaquín Cabot Dalmaut (SPA) Dra. Adriana Schwartz Tapia (SPA) Dr. José Germán Medina (VEN) Dr. Juan López-Laserna Ruiz (SPA) Dr. Fernando Kirchner van Gelderen (SPA) Dr. F. Javier Hidalgo Tallón (SPA)
*18:00 - 18:30	Pausa Café

Note:

If nothing else is specified, all events take place at Faculty of Medicine, Madrid Complutense University, Moncloa Campus. Madrid (Spain). Language: Pre-congress course is available only in Spanish.

Conference Agenda

Thursday 7th - Saturday 9th, June 2012.

Thursday, 7	Room "Anatomia 2", Faculty of Medicine, Madrid Complutense University. Moncloa Campus.
08:00 - 9:00	Registration
09:00 - 20:00	Pre-congress workshops
Friday, 8	Room "Botella", Faculty of Medicine, Madrid Complutense University. Moncloa Campus.
08:00 - 9:00	Registration. Room "Botella", Faculty of Medicine, Madrid Complutense University. Moncloa Campus.
09:00 - 9:30	Welcome / Open ceremony
9:00 - 9:15	Welcoming speech: Dra. Adriana Schwartz Tapia. President of IMEOF.
9:15 - 9:30	Welcoming speech: Dr. José Luis Álvarez-Sala Walther, Dean of the Faculty of Medicine, Madrid Complutense University.
	Plenary Lecture.
	Chairs: Adriana Schwartz Tapia (SPA) / Velio Bocci (ITA)
	9.30 Roberto Quintero Mariño (SPA). Ozone therapy challenges facing the legislation
9:30 - 11:05	9.50 Velio Bocci (ITA). The Mechanism of Action of Ozonotherapy at a Molecular Level
	10.10 Bernardino Clavo (SPA) Ozone in Oncology. Clinical experience and research areas at the Dr. Negrín University Hospital.
	10.30 Aubrey Clint Folsom (USA). The Effects of Ozone Therapy in Conjunction with Vaccination Immunotherapy for Malignant Brain Tumor: Case Study
	10.50-11.05 Discussion
11:05 - 12:00	Coffee Break
	Plenary Lecture.
	Chairs: Humberto Loscertales (SPA)/Luis David Suárez Rodríguez (MEX)
	12.00 Eduardo Martín García Villanueva (MEX). Ozone Therapy in Urology.
12:00 - 13:55	12.20 Luis David Suárez Rodríguez(MEX).Changes in Arterial Stiffness-Distensibility and Cardiovascular Risk Factors (Franningham) after Major Autohemotherapy with Oxygen-Ozone.
	12.40 Livan Delgado Roche, (CUB) Antiatherogenic effects of ozone therapy in an experimental model of atherosclerosis.
	13.00 Gregorio Martínez-Sánchez, (CUB) Effects of ozone therapy on haemostatic and oxidative stress index in coronary artery disease.
	13.20 Adriana Schwartz Tapia (SPA). Ozone Therapy in Recurrent Vulvovaginal <i>Candida albicans</i> Infections
	13.40-13.55 Discussion
13.55 - 15.45	Lunch Faculty of Medicine Restaurant. Speakers are invited by AEPROMO.
	Plenary Lecture.
	Chairs: Enrique Riverola (SPA) / Nabil Mawsouf (EGY)
15:45 - 17:40	15.45 Ruhi Cakir(TUR). Sepsis and Ozone Therapy in ICU / Clinical study and two case reports
	16.05 Mirta Copello Noblet (CUB). Clinical experience in the treatment of Epidemic Hemorrhagic Conjunctivitis with OLEOZON collyrium
	16.25 Nabil Mawsouf (EGY). Effect of Ozone Therapy in Treating Toxoplasmosis in Cases with Recurrent Abortion (A Comparative Study).
	16.45 Froylán Alvarado Gúmez (MEX).Combined Therapy Ultraviolet Irradiation of Autologous Blood Plus Ozone.
	17.05 Heinz Konrad (BRA). Ozone Therapy for Viral Hepatitis. What can be expected?
	17.25-17.40 Discussion
17:40 - 18:30	Coffee Break
18.30 - 20.30	AEPROMO Members Meeting

Conference Agenda

Saturday 9th, June 2012.

Saturday, 9	Room "Botella", Faculty of Medicine, Madrid Complutense University. Moncloa Campus.
	Plenary Lecture.
	Chairs: Gregorio Martínez-Sánchez, (CUB) / Humberto Loscertales (SPA)
9:00 - 11:15	9.00 Renate Viebahn-Hänsler (GER). The Low-Dose Ozone Concept: Signal Transduction and Bioregulation Through "Ozone Peroxides" as Second Messenger Molecules. 9.20 Sergey Peretyagin (RUS). Individualization of infusion therapy with oxygen reactive forms 9.40 Oksana Bitkina (RUS). Perspectives of ozone containing external preparations using in dermatology 10.00 Rosa María Barceló Cortés (SPA). Efficiency of ozonotherapy in psychological variables in the fibromyalgia treatment: a pilot study. 10.20 Esteban González Sánchez (SPA). Ozonotherapy in Multiple Sclerosis. Case Report 10.40 Mercedes Hernández Avilés (SPA). Use of Ozone and Ozonized Growth Factors in Dogs. Clinical Cases 11.00-11.15 Discussion
11:15 - 12:15	Coffee Break
	Plenary Lecture.
	Chairs: Joaquín Cabot Dalmaut (SPA) / F. Javier Hidalgo Tallón (SPA)
12:15 - 13:50	12.15 Silvia del Carmen Díaz Llera Ph.D. (CUB). Is therapeutic ozone genotoxic? 12.35 Francisco José Martín Florido (SPA). The Contributions of Ozone Therapy to Parkinson's Disease. 12.55 Alberto Alexandre (ITA). Treatment of symptomatic spinal degenerative pathologies by means of combined conservative biochemical treatments. 13.15 F. Javier Hidalgo Tallón (SPA). Head and Neck Pain. Therapeutic Role of Ozonotherapy 13.35 -13.50 Discussion
13.50 - 15.50	Lunch
	Plenary Lecture.
	Chairs: Agustín Molis Olmos (SPA) / Fernando Kirchner van Gelderen (SPA)
15:50 - 17:25	15.50 Joaquín Cabot Dalmaut (SPA). Combined Technique of Ozonotherapy and Platelet Derived Growth Factors in the Knee Osteoarthritis. 16.10 Fernando Kirchner van Gelderen (SPA). Treatment of disk and degenerative pathologies of the spine with Plasma rich in growth platelet inhibitors factors. 16.30 Ramiro Alvarado (BOL). Treatment for Radicular Compression. Experience of 492 cases in Bolivia 16.50 Nurettin Lüleci (TUR). Ozone Therapy in Degenerative Disc Disease 17.10 - 17.25 Discussion
17:25 - 18:25	Coffee Break
	Plenary Lecture.
	Chairs: Francisco José Martín Florido (SPA) / Antonio Corralero (SPA)
18:25 - 20:00	18.25 José Germán Medina (VEN). Ozone Applications in Spine Diseases 18.45 Juan López-Laserna Ruiz (SPA). Results of Conservative Treatment of Tarsal Tunnel Syndrome: Medical Ozone Infiltration with and Surgery 19.05 Susanne Rodekohr (MEX). Ozone-Oxygen Injections in Acupuncture Points: A New Approach 19.25 Ofir J. Betancourt B. Ofir Betancourt (VEN). Legg-Calvé-Perthes disease. A Case Report 19.45-20.00 Discussion / General discussion / Concluding remarks

Conference Agenda - Agenda Congreso (English/Español)

Bilingual version/ Version bilingüe

Viernes 8 de junio - Friday June 8th, 2012

8:00 – 9:00	Registro - <i>Registration</i>
9:00 – 9:30	Inauguración - <i>Welcome Ceremony</i> Dra. Adriana Schwartz, Presidenta AEPROMO. Presidente Ilustre Colegio de Médicos de Madrid. Dr. José Luis Álvarez-Sala Walther, Decano, Facultad de Medicina, Universidad Complutense. Representante Consejería de Sanidad de la Comunidad de Madrid.
	Moderadores - Chairpersons: Dra. Adriana Schwartz Tapia (España). Prof. Velio Bocci (Italia)
9:30 – 9:50	D. Roberto Quintero Mariño (España - Spain) Abogado. Diploma Relaciones Internacionales. Doctorado Ciencias Políticas. Funcionario de Naciones Unidas por más de 22 años. Asesor Jurídico de la Asociación Española de Profesionales Médicos en Ozonoterapia - AEPROMO (www.aepromo.org); de la International Medical Ozone Federation (IMEOF) (www.imeof.org); y de la International Scientific Committee of Ozone Therapy (ISCO3) (www.isco3.org). Miembro Consejo Redacción, Revista Española de Ozonoterapia. <i>Lawyer. International Relations. Political Sciences. Former United Nations member. Legal Advisor of AEPROMO, IMEOF and ISCO3. Member Drafting Board, Spanish Journal of Ozone Therapy.</i> Ponencia: "Los desafíos de la ozonoterapia frente a la legislación". <i>Lecture: "Ozone Therapy challenges facing the legislation".</i>
9:50 – 10:10	Prof. Velio Bocci (Italia - Italy) MD. Profesor Emérito de Fisiología de la Universidad de Siena. Miembro Honorario de AEPROMO. Presidente de ISCO3. Miembro Comité Editorial, Revista Española de Ozonoterapia. <i>MD. Emeritus Professor of Physiology at the University of Siena. AEPROMO Honorary Member. President, International Scientific Committee of Ozone Therapy (ISCO3). Member Editorial Board, Spanish Journal of Ozone Therapy.</i> Ponencia: "Los mecanismos de acción de la ozonoterapia al nivel molecular". <i>Lecture: "The Mechanism of Action of Ozone Therapy at a Molecular Level".</i>
10:10 – 10:30	Dr. Bernardino Clavo Varas (España - Spain) MD, PhD. Servicio de Oncología Radioterápica, Unidad de Investigación y Unidad de Dolor Crónico del Hospital Universitario de Gran Canaria Dr. Negrín. Miembro de AEPROMO. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Comité Evaluador, Revista Española de Ozonoterapia. <i>MD, PhD. Department of Radiation Oncology, Research Unit and Chronic Pain Unit at the Great Canary University Hospital Dr. Negrín. AEPROMO member. Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Evaluation Board, Spanish Journal of Ozone Therapy.</i> Ponencia: "Ozono en Oncología. Experiencias y líneas de investigación en el Hospital Universitario de G.C. Dr. Negrín". <i>Lecture: "Ozone in Oncology. Clinical experience and research areas at the Dr. Negrín University Hospital".</i>
10:30 – 10:50	Mr. Aubrey Clint Folsom (Estados Unidos - United States) Biólogo. World Cancer Centers S.DE R.L, Director, Folsom Metal Products, Inc., Pelham, AL. Reconocimiento Congreso de EUA por trabajo de diseño en Transbordador Espacial. <i>USA. Biologist. World Cancer Centers S.DE R.L. CEO Folsom Metal Products, Inc., Pelham, AL. USA Congressional Recognition for Design work on Space Shuttle.</i>

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Ponencia: "Efectos de la ozonoterapia junto con la inmunoterapia de vacunación en el tratamiento del tumor cerebral maligno. Estudio de caso".

Lecture: "The Effects of Ozone Therapy in Conjunction with Vaccination Immunotherapy for Malignant Brain Tumor. A Case Study".

- 10:50 – 11:05 Preguntas-respuestas. *Questions-answers.*
- 11:05 – 12:00 Descanso café y visitas exposición comercial. *Coffee break and visit to commercial exposition.*
- Moderadores - Chairpersons: Dr. Humberto Loscertales (España). Dr. Luis David Suárez Rodríguez (México)
- 12:00 - 12:20 Dr. Eduardo Martín García Villanueva (México).
MD. Urología. Urología oncológica.
MD. Urology. Oncological Urology.
Ponencia: "La ozonoterapia en urología".
Lecture: "Ozone Therapy in Urology".
- 12:20 – 12:40 Dr. Luis David Suárez Rodríguez (México)
MD. Anestesiología. Acupuntura y fisioterapia. Director, Centro de Medicina Integrativa SANAR SC, Cancún.
MD. Anesthesiology. Acupuncture and physiotherapy. General Manager, Centro de Medicina Integrativa SANAR SC, Cancún.
Ponencia: "Cambios en la rigidez-distensibilidad arterial, y factores de riesgo cardiovascular (Franningham) después de la autohemoterapiamayor conoxígeno-ozono."
Lecture: 'Changes in Arterial Stiffness-Distensibility and Cardiovascular Risk Factors (Franningham) after Major Autohemotherapy with Oxygen-Ozone".
- 12:40 – 13:00 Prof. Livan Delgado Roche (Cuba)
Maestro en Farmacología. Investigador Agregado. Centro de Estudios para las Investigaciones y Evaluaciones Biológicas. Instituto de Farmacia y Alimentos, Universidad de la Habana.
Master in Pharmacology. Junior researcher. Centre for Research and Biological Evaluations, Institute of Pharmacy and Food Sciences, University of Havana.
Ponencia: "Efectos antiaterogénicos de la ozonoterapia en un modelo experimental de aterosclerosis".
Lecture: "Antiatherogenic effects of ozone therapy in an experimental model of atherosclerosis".
- 13:00 – 13:20 Dr. Gregorio Martínez Sánchez (Italia - Italy)
Dr. Ciencias Farmacéuticas. Investigador Titular y Director Científico, Medinat srl. Ancona. Miembro de AEPROMO. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Consejo Redacción, Comités Editorial y Evaluador, Revista Española de Ozonoterapia.
Pharmacy Doctor. Senior Researcher. Scientific Director, Medinat srl. Ancona (Italy). AEPROMO member. Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Drafting Board, Editorial & Evaluation Boards, Spanish Journal of Ozone Therapy.
Ponencia: "Efectos de la ozonoterapia en el índice hemostático y de estrés oxidativo en la enfermedad arterial coronaria".
Lecture: "Effects of ozone therapy on haemostatic and oxidative stress index in coronary artery disease".
- 13:20 – 13:40 Dra. Adriana Schwartz (España - Spain).
MD. Directora Clínica Fiorela, Madrid. Directora Científica Instituto Clínico Fiorela, San Pedro Sula (Honduras). Presidenta de AEPROMO. Presidenta de la Federación Internacional Médica de Ozono (IMEOF). Secretaria del Comité Internacional Científico de Ozonoterapia (ISCO3). Directora, Revista Española de Ozonoterapia.
MD. Director, Clínica Fiorela, Madrid. Scientific Director, Fiorela Clinical Institute, San Pedro Sula (Honduras). AEPROMO President. International Medical Ozone Federation (IMEOF). Secretary, International Scientific Committee of Ozone Therapy (ISCO3). Director, Spanish Journal of Ozone Therapy.

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- 13:40 – 13:55 Ponencia: "Ozono terapia en vulvovaginitis recurrente por infección de Candida albicans".
Lecture: "Ozone Therapy in Recurrent Vulvovaginal Candida albicans Infections".
- Preguntas-respuestas. Questions-answers.
- 13:55 - 15:45 Comida a cargo de cada participante. Pueden comer a precio módico en el Restaurante de los Estudiantes de la Facultad de Medicina.
Lunch in charge of every participant who may have it at a low price at the Students Restaurant of the Faculty of Medicine.
- Moderadores -Chairpersons:** Dr. Enrique Riverola (España), Dr. Nabil Mawsouf (Egipto)
- 15:45 - 16:05 Dr. Ruhi Cakir (Turquia).
MD. Clínica anti envejecimiento de la Universidad de Dressden - Medicina Preventiva. Miembro fundador de la Asociación de Ozonoterapia de Turkia. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Turkia.
MD.Dressden University Preventive Medicine – Anti-Aging Clinic.Founding member Turkish Ozone Associations. Member of the International Scientific Committee of Ozonetherapy (ISCO3). Turkey.
- Ponencia: "Sepsis y Ozonoterapia en ICU. Estudio clínico y dos reportes de caso".
Lecture: 'Sepsis and Ozone Therapy in ICU / Clinical study and two case reports.'
- 16:05 - 16:25 Dra. Mirta Copello Noblet (Cuba).
MD. Centro Nacional de Referencia de Retinosis Pigmentaria. Hospital "Dr. Salvador Allende". La Habana. Miembro de Aepromo y del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Comité Editorial, Revista Española de Ozonoterapia.
MD. Retinitis Pigmentosa National Reference Centre. "Dr. Salvador Allende" Hospital. Havana. AEPROMO member. Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Editorial Board, Spanish Journal of Ozone Therapy.
- Ponencia: "Experiencia clínica en el tratamiento de la conjuntivitis de hemorragia epidémica con colirio Oleozón".
Lecture: "Clinical experience in the treatment of Epidemic Hemorrhagic Conjunctivitis with OLEOZON collyrium".
- 16:25 - 16:45 Prof. Nabil Mawsouf (Egipto - Egypt).
MD. Anestesiología. Director de la Unidad del Dolor, Universidad del Cairo. Presidente, Sociedad Egipcia Médica para Ozonoterapia y Desarrollo de Medicina Complementaria. Miembro de AEPROMO. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Consejo Redacción, Comités Editorial y Evaluador, Revista Española de Ozonoterapia.
MD. Anesthesiology. Director of the Unit of Pain, University of Cairo. President, Egyptian Medical Society for Ozonetherapy and Complementary Medicine Development. AEPROMO member. Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Drafting Board, Editorial & Evaluation Boards, Spanish Journal of Ozone Therapy.
- Ponencia: "Efecto de la ozono terapia en el tratamiento de la toxoplasmosis en los casos de aborto recurrente (estudio comparativo)." *Lecture: "Effect of Ozone Therapy in Treating Toxoplasmosis in Cases with Recurrent Abortion (A Comparative Study)".*
- 16:45 – 17:05 Dr. Froylán Alvarado Gúmez (México).
MD. Medicina Tradicional China, Homeopatía. Profesor, Facultad de Medicina, Universidad Autónoma de Sinaloa. Presidente del Asociación Mexicana de Ozonoterapia (AMOZON). Miembro de AEPROMO y miembro del International Scientific Committe of Ozone Therapy (ISCO3).

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	<p><i>MD. Traditional Chinese Medicine, Homeopathy. Professor, Faculty of Medicine, Autonomous University of Sinaloa. President of the Mexican Ozone Therapy Association (AMOZON). Member of AEPROMO and member of ISCO3.</i></p> <p><i>Ponencia: "Terapia combinada de irradiación ultravioleta de sangre autóloga más Ozono "</i> <i>Lecture: "Combined Therapy Ultraviolet Irradiation of Autologous Blood Plus Ozone".</i></p>
17:05 – 17:25	<p>Dr. Heinz Konrad (Brasil - Brazil).</p> <p><i>MD. Cirugía General. Fundador de la Asociación Brasileña de Ozonoterapia (ABOZ). Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Consejo Redacción y Comité Editorial, Revista Española de Ozonoterapia.</i></p> <p><i>MD. General Surgery. Founder of the Brazilian Association of Ozone Therapy (ABOZ). Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Drafting & Editorial Boards, Spanish Journal of Ozone Therapy.</i></p> <p><i>Ponencia: "La ozono terapia para la hepatitis viral. ¿Qué se puede esperar?"</i> <i>Lecture: "Ozone Therapy for Viral Hepatitis. What can be expected?"</i></p>
17:25 - 17:40	<p>Preguntas-respuestas. <i>Questions-answers.</i></p>
17:40 - 18:30	<p>Descanso café y visitas exposición comercial. <i>Coffee break and visit to commercial exposition.</i></p>
18:00	<p>Primera convocatoria asamblea general ordinaria de AEPROMO. Salón Botella, Facultad de Medicina, Universidad Complutense de Madrid. <i>First call, AEPROMO ordinary general assembly. Salón Botella, Faculty of Medicine, Madrid Complutense University.</i></p>
18:30	<p>Segunda convocatoria asamblea general ordinaria de AEPROMO. Salón Botella, Facultad de Medicina, Universidad Complutense de Madrid. <i>Second call, AEPROMO ordinary general assembly. Salón Botella, Faculty of Medicine, Madrid Complutense University.</i></p>
20:30	<p>Fin de actividades primer día congreso / End first day congress activities</p>

Sábado 9 de junio - Saturday June 8th

	<p>Moderadores - Chairpersons: Dr. Gregorio Martínez Sánchez (España) / Dr. Humberto Loscertales (España).</p>
9.00 - 9:20	<p>Dra. Renate Viebahn-Haensler (Alemania - Germany).</p> <p>Bioquímica y Farmacéutica. Secretaria General de la Sociedad Médica Alemana para el Uso del Ozono en Prevención y Terapia y de la Cooperación Europea de Sociedades del Ozono Médico.</p> <p><i>Bio-Chemistry & Pharmacology. General Secretary of the German Medical Society for the Use of Ozone in Prevention and Therapy and the European Cooperation of the Medical Ozone Societies.</i></p> <p><i>Ponencia: "El concepto de las bajas dosis de ozono: Señal de transducción y bioregulación a través de 'Los peróxidos de ozono' como segundos mensajeros."</i> <i>Lecture: "The Low-Dose Ozone Concept: Signal Transduction and Bioregulation Through "Ozone Peroxides" as Second Messenger Molecules.</i></p>
9:20 – 9:40	<p>Prof. Sergey Peretyagin (Rusia - Russia).</p> <p>MD. Director, Departamento de Medicina Experimental, Instituto de Investigación de Traumatología y Ortopedia, Nizhny Novgorod. Presidente de la Asociación Rusa de Ozonoterapia. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3).</p> <p><i>MD. Head, Department of Experimental Medicine, Research Institute of Traumatology and Orthopedics, Nizhny Novgorod. President of the Russian Association of Ozone Therapy. Member, International Scientific Committee of Ozone Therapy (ISCO3).</i></p> <p><i>Ponencia: "La individualización de la terapia de infiltración con formas reactivas del oxígeno".</i> <i>Lecture: "Individualization of infusion therapy with oxygen reactive forms".</i></p>

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- 9.40 – 10:00 Dra. Oksana Bitkina (Rusia - Russia).
MD. Instituto de Investigación Dermatovenereal, Academia Médica Estatal, Nizhny Novgorod. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3).
MD. Nizhny Novgorod State Medical Academy, Nizhny Novgorod Research Dermatovenereal Institute. Member, International Scientific Committee of Ozone Therapy (ISCO3).
Ponencia: "Perspectivas de las preparaciones externas a base de ozono en dermatología". Lecture: "Perspectives of ozone containing external preparations using in dermatology"
- 10.00. – 10:20 Dra. Rosa María Barceló Cortés (España - Spain).
MD. Enfermera, Psicóloga. Acupuntura. Neuroanatomía. Auriculoterapia. Miembro de AEPROMO.
MD. Nurse, Psychologist, Acupuncture, Neuroanatomy and Auriculopuncture. AEPROMO member.
Ponencia: "Eficacia de la terapia de ozono en variables psicológicas en el tratamiento de la fibromialgia: un estudio piloto".
Lecture: "Efficiency of ozone therapy in psychological variables in the fibromyalgia treatment: a pilot study."
- 10.20 – 10:40 Dr. Esteban José González Sánchez (España - Spain).
MD. Medicina Interna. Director de Clínicanaria Internacional, Las Palmas. Miembro de AEPROMO.
Miembro Consejo Redacción y Comité Evaluador, Revista Española de Ozonoterapia.
MD. Internal Medicine. Director, Clínicanaria Internacional, Las Palmas. Member of AEPROMO. Member Drafting & Evaluation Boards, Spanish Journal of Ozone Therapy.
Ponencia: "La ozonoterapia en la esclerosis múltiple. Reporte de caso."
Lecture: "Ozonotherapy in Multiple Sclerosis. Case Report".
- 10.40 – 11:00 Dra. Vet. Mercedes Hernández Avilés (España - Spain).
Veterinaria. Directora, Clínica Dramp. Miembro de AEPROMO.
Veterinary. Director, Dramp Clinic. AEPROMO member.
Ponencia: "Utilización del ozono y factores de crecimiento ozonizados en la especie canina. Casos clínicos".
Lecture: "Use of Ozone and ozonated growth factors in dogs. Clinical cases".
- 11:00 - 11:15 Preguntas-respuestas. *Questions-answers.*
- 11:15 - 12:15 Descanso café y visitas exposición comercial. *Coffee break and visit to commercial exposition.*
- Moderadores - Chairpersons: Dr. Joaquín Cabot Dalmaut (España). Dr. Javier Hidalgo (España)**
- 12:15 - 12:35 Prof. Silvia del Carmen Díaz-Llera (Cuba).
Dra. Ciencias Farmacéuticas. Instituto de Farmacia y Alimentos, Universidad de la Habana.
Pharmacy Science Doctor. Institute of Pharmacy and Food Sciences, University of Havana.
Ponencia: "¿Es genotóxico el ozono terapéutico?"
Lecture: "Is genotoxic the therapeutic ozone?"
- 12.35 – 12:55 Dr. Francisco José Martín Florido (España).
MD. Master, Medicina Estética. Experto, Medicina antienvejecimiento. Coordinador cursos de ozonoterapia, Universidad de Sevilla. Director, Clínica Medicentro, Huelva. Miembro de AEPROMO.
Miembro Comité Editorial, Revista Española de Ozonoterapia.
MD. Master aesthetic medicine. Expertise in anti-aging medicine. Coordinator of Ozone Therapy courses, Seville University. Director, Clinic Medicentro, Huelva. Member of AEPROMO. Member Editorial Board, Spanish Journal of Ozone Therapy.
Ponencia: "La ozonoterapia en el contexto de la enfermedad de Parkinson".
Lecture: "The Contributions of Ozone Therapy to Parkinson's Disease".

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- 12:55 - 13:15 Dr. Alberto Alexandre (Italia - Italy).
MD. Neurocirugía. Cirugía Mínima Invasiva de la Espina Dorsal. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Comité Editorial, Revista Española de Ozonoterapia.
MD. Minimally Invasive Spine Surgery. Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Editorial Board, Spanish Journal of Ozone Therapy.
Ponencia: "Tratamiento de patologías sintomáticas degenerativas de la columna con la combinación de tratamientos bioquímicos conservadores". Patologías degenerativas de la columna con la combinación de tratamientos bioquímicos conservadores".
Lecture: "Treatment of symptomatic spinal degenerative pathologies by means of combined conservative biochemical treatments".
- 13:15 - 13:35 Dr. Francisco Javier Hidalgo Tallón (España - Spain).
MD. Odontólogo. Doctor en Neurociencias. Miembro del Grupo de Investigación en Cefaleas, Fibromialgia y Psicotropos de la Junta de Andalucía. Director médico de Clinalgia. Miembro de AEPROMO.
MD. Dentist. Doctor in Neuroscience. Member of the Research Group on Headaches, Fibromyalgia and Psychotropics of the Andalusian Community. Medical Director of Clinalgia. AEPROMO member.
Ponencia: "Dolor de cabeza y cuello. Papel terapéutico de la ozonoterapia".
Lecture "Head and neck pain. Therapeutic role of ozone therapy".
- 13:35 - 13:50 Preguntas-respuestas. *Questions-answers.*
- 13:50 – 15:50 Comida a cargo de cada participante. Pueden comer a precio módico en el Restaurante de los Estudiantes de la Facultad de Medicina.
Lunch in charge of every participant who may have it at a low price at the Studends Restaurant of the Faculty of Medicine.
- Moderadores / Chairpersons:** Dr. Agustí Molins Olmos (España), Dr. Fernando Kirchner van Gelderen (España)
- 15:50 - 16:10 Dr. Joaquín Cabot Dalmau (España - Spain).
MD. Cirugía Ortopédica y Traumatología. Hospital Quirón. Vocal de AEPROMO. Miembro Comité Editorial, Revista Española de Ozonoterapia.
MD. Orthopedic Cirurgy & Traumathology. Quirón Hospital. Barcelona. AEPROMO Board member. Member Editorial Board, Spanish Journal of Ozone Therapy.
Ponencia: "Técnica Combinada de Ozonoterapia y Factores de Crecimiento en la Artrosis de Rodilla".
Lecture: "Combined Technique of Ozone Therapy and Platelet Derived Growth Factors in the Knee Osteoarthritis".
- 16:10 - 16:30 Dr. Fernando Kirchner van Gelderen (España - Spain).
MD. Traumatología. Director, Gabinet Mèdic Maresme, Caldes d'Estrac. Vocal de AEPROMO. Miembro Comité Editorial, Revista Española de Ozonoterapia.
MD. Traumathlogy. Director, Gabinet Mèdic Maresme. AEPROMO Board member. Member Editorial Board, Spanish Journal of Ozone Therapy.
Ponencia: "Tratamiento de las patologías discales y degenerativas de la columna vertebral con Plasma Rico en Factores de Crecimiento Plaquetarios Ozonizados.".
Lecture: "Treatment of disk and degenerative pathologies of the spine with Plasma rich in growth platelet inhibitors factors".
- 16.30 – 16:50 Dr. Ramiro Alvarado (Bolivia).
MD. Neurocirugía. Bolivia.
MD. Neurosurgery
Ponencia: "Tratamiento de la compresión radicular. Experiencia de 492 casos en Bolivia."
Lecture: "Treatment for Radicular Compression. Experience of 492 cases in Bolivia".

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- 16:50 - 17:10 Prof. Nurettin Lüleci (Turquía - Turkey).
MD. Universidad Cela Bayar, Estambul.(Turquía). Presidente, Asociación Médica de Ozonoterapia (MOTDER).
MD. Istanbul Cela Bayar University. President, Medical Ozone Therapy Association (MOTDER).
Ponencia: "La ozonoterapia en la enfermedad degenerativa del disco".
Lecture: "Ozone Therapy in Degenerative Disc Disease".
- 17:10 - 17:25 Preguntas-respuestas. *Questions-answers.*
- 17:25 - 18:25 Descanso café y visitas exposición comercial. *Coffee break and visit to commercial exposition.*
- Moderadores / Chairperson: Dr. Francisco Martín Florido (España). Dr. Antonio Corralero (España).**
- 18.25 – 18:45 Prof. José Germán Medina (Venezuela).
MD. Máster en Salud Pública. Cirugía Espinal. Profesor, Universidad Central de Venezuela. Jefe, Trauma y Ortopedia, Hospital Vargas, Caracas. Secretario, Sociedad Venezolana de Ozonoterapia (SOVEOT).
MD. Master in Public Health. Spine surgery. Professor Venezuelan Central University. Chief, Trauma & Orthopedics, Hospital Vargas, Caracas. Secretary, Venezuelan Society of Ozone Therapy (SOVEOT).
Ponencia: "Aplicaciones del ozono en las enfermedades de la columna".
Lecture: "Ozone Applications in Spine Diseases."
- 18:45 - 19:05 Dr. Juan López-Laserna Ruiz (España - Spain).
MD. Traumatólogo. Jefe, Unidad de Pie y Tobillo, Hospital San Juan de Dios, Córdoba. Miembro de AEPROMO.
MD. Traumatology. Chief, Foot and Ankle Unit, San Juan de Dios Hospital, Córdoba. AEPROMO member.
Ponencia: Resultados del tratamiento conservado del Síndrome del Canal Tarsiano: Infiltraciones con Ozono Medico y con Cirugía.
Lecture: "Results of preserved treatment of the Tarsal Tunnel Syndrome: Infiltrations with Medical Ozone and Surgery."
- 19:05 - 19:25 Dra. Susanne Rodekohr (Alemania - Germany).
MD. Enfermera. Acupuntura. Homeopatía. Práctica privada. Miembro de AEPROMO.
MD. Nurse. Acupuncture. Homeopathy. Private practice. AEPROMO member.
Ponencia: "Infiltraciones de ozono-oxígeno en puntos de acupuntura: un nuevo enfoque".
Lecture: "Ozone-Oxygen injections in acupuncture points: A new approach".
- 19:25 - 19:45 Dr. Ofir José Betancourt Betancourt (Venezuela).
MD. Traumatología. Miembro de AEPROMO. Vicepresidente, Sociedad Venezolana de Ozonoterapia (SOVEOT).
MD. Traumatology. AEPROMO member. Vice-president, Venezuelan Association of Ozone Therapy (SOVEOT).
Ponencia: "La enfermedad de Legg-Calvé-Perthes. Reporte de caso"
Lecture: "Legg-Calvé-Perthes disease. A Case Report".
- 19:45 - 20:00 Preguntas-respuestas. Conclusiones generales. *Questions-Answers. General conclusions.*

Plenary lecture index

Friday, 8

Roberto Quintero Mariño (SPA)	Ozonotherapy challenges facing the legislation
Velio Bocci (ITA)	The Mechanism of Action of Ozonotherapy at a Molecular Level
Bernardino Clavo(SPA)	Ozone in Oncology. Clinical experience and research areas at the Dr. Negrín University Hospital.
Aubrey Clint Folsom (USA)	The Effects of Ozone Therapy in Conjunction with Vaccination Immunotherapy for Malignant Brain Tumor: Case Study.
Eduardo Martín García Villanueva(MEX).	Ozone Therapy in Urology.
Luis David Suárez Rodríguez(MEX)	Changes in Arterial Stiffness-Distensibility and Cardiovascular Risk Factors (Franningham) after Major Autohemotherapy with Oxygen-Ozone
Livan Delgado Roche(CUB)	Antiatherogenic effects of ozone therapy in an experimental model of atherosclerosis.
Gregorio Martínez-Sánchez(CUB)	Effects of ozone therapy on haemostatic and oxidative stress index in coronary artery disease.
Silvia del Carmen Díaz Llera(CUB)	Is therapeutic ozone genotoxic?
Adriana Schwartz Tapia (SPA)	Ozone Therapy in Recurrent Vulvovaginal Candida albicans Infections
Ruhi Carkir(TUR).	Sepsis and Ozone Therapy in ICU / Clinical study and two case reports
Mirta Copello Noblet (CUB)	Clinical experience in the treatment of Epidemic Hemorrhagic Conjunctivitis with OLEOZON collyrium
Nabil Mawsouf (EGY)	Effect of Ozone Therapy in Treating Toxoplasmosis in Cases with Recurrent Abortion (A Comparative Study).
Froylán Alvarado Güémez (MEX)	Combined Therapy Ultraviolet Irradiation of Autologous Blood Plus Ozone.
Heinz Konrad (BRA)	Ozone Therapy for Viral Hepatitis. What can be expected.
Ofir J. Betancourt B. Ofir Betancourt (VEN)	Legg-Calvé-Perthes disease. A Case Study

Saturday, 9

Renate Viebahn-Hänsler (GER)	The Low-Dose Ozone Concept: Signal Transduction and Bioregulation Through "Ozone Peroxides" as Second Messenger Molecules.
Sergey Peretyagin(RUS)	Individualization of infusion therapy with oxygen reactive forms.
Oksana Bitkina (RUS)	Perspectives of ozone containing external preparations using in dermatology.
Rosa María Barceló Cortés (SPA)	Efficiency of ozonotherapy in psychological variables in the fibromyalgia treatment: a pilot study.
Francisco José Martín Florido (SPA)	The Contributions of Ozone Therapy to Parkinson's Disease.
Esteban González Sánchez (SPA)	Ozonotherapy in Multiple Sclerosis. Presentation of a Case.
Susanne Rodekohr (MEX)	Ozone-Oxygen Injections in Acupuncture Points: A New Approach.
Alberto Alexandre (ITA)	Treatment of symptomatic spinal degenerative pathologies by means of combined conservative biochemical treatments.
F. Javier Hidalgo Tallón (SPA)	Head and Neck Pain. Therapeutic Role of Ozonotherapy.
Joaquín Cabot Dalmaut (SPA)	Combined Technique of Ozonotherapy and Platelet Derived Growth Factors in the Knee Osteoarthritis.
Fernando Kirchner van Gelderen (SPA)	Treatment of disk and degenerative pathologies of the spine with Plasma rich in growth platelet inhibitors factors.
Ramiro Alvarado (BOL)	Treatment for Radicular Compression. Experience of 492 cases in Bolivia.
Nurettin Lüleci (TUR)	Ozone Therapy in Degenerative Disc Disease.
José Germán Medina (VEN)	Ozone Applications in Spine Diseases.
Juan López-Laserna Ruiz (SPA)	Results of Conservative Treatment of Tarsal Tunnel Syndrome: Medical Ozone Infiltration with and Surgery.
Mercedes Hernández Avilés (SPA)	Use of Ozone and Ozonized Growth Factors in Dogs. Clinical Cases.
Alexandre Alberto (ITA)	Treatment of Symptomatic Spinal Degenerative Pathologies by Means of Combined Conservative Biochemical Treatments.

Plenary lecture

Antiatherogenic Effects of Ozone Therapy in an Experimental Model of Atherosclerosis.

Livan Delgado Roche,¹ Gregorio Martínez-Sánchez,² Lamberto Re.^{2,3}

¹Centro de Estudios para las Investigaciones y Evaluaciones Biológicas, Instituto de Farmacia y Alimentos, Universidad de La Habana, Calle 222 y Ave 27A No. 21425, La Coronela, La Lisa, CP 13600, La Habana, Cuba. Teléfono: 537-2719538, Fax: 537-2736811, E-mail: ldelgado@ifal.uh.cu

²Medinat srl Clinic, Vía Fazioli 22, 60021 Camerano, Italy. Tel. +39 071 731076 Fax. +39 071 731347, E.Mail: gregorcuba@yahoo.it

³Pharmacology, D.I.S.M.A.R., University of Ancona, Italy. Tel. Fax. +39 071 7310076 E.mail: lambertore@univpm.it

Atherosclerosis represents a major cause of death in the Western World. Oxidative stress plays a central role in the pathogenesis of this disease. It is known that reactive oxygen species may oxidize low-density lipoproteins which are internalized by macrophages with the subsequent foam cells formation. On the other hand, ozone at low doses has been satisfactorily used in the control of oxidative stress-associated pathologies, such as coronary artery diseases. The aim of the present work was to evaluate the effects of ozone therapy on redox biomarkers in an experimental model of atherosclerosis. Ozone (1 mg), mixed with oxygen as passive carrier, was administered to New Zealand White rabbits by rectal insufflation during 15 sessions. After ozone treatment, 2 mL/kg of Lipofundin® were intravenously administered during 8 consecutive days; then, rabbits were euthanized. The aortas arches were then removed and eosin/hematoxylin staining was used for histopathological analysis. The biomarkers of oxidative stress and lipid profile in serum were determined by spectrophotometric techniques. The results demonstrated that ozone had inhibitory effects on aortic lesions formation. On the other hand, a significant ($p<0.05$) reduction of biomolecules damage and an increase of antioxidant systems were observed. The serum lipids profiles were not modified after only one cycle of ozone treatment. These results reinforced the hypotheses of some antioxidant effects induced by ozone in the context of atherosclerosis demonstrating the antiatherogenic properties of the gas at the experimental condition of this study.

Key: PL1 ENG

Type of Presentation: Oral Presentation. Pre-clinical study.

Keywords: ozone therapy, atherosclerosis, oxidative stress, antiatherogenic effects, preclinical model

Conferencia Plenaria

Efectos Antiaterogénicos de la Ozonoterapia en un Modelo Experimental de Aterosclerosis.

Livan Delgado Roche,¹ Gregorio Martínez-Sánchez,² Lamberto Re.^{2,3}

¹Centro de Estudios para las Investigaciones y Evaluaciones Biológicas, Instituto de Farmacia y Alimentos, Universidad de La Habana, Calle 222 y Ave 27A No. 21425, La Coronela, La Lisa, CP 13600, La Habana, Cuba. Teléfono: 537-2719538, Fax: 537-2736811, E-mail: ldelgado@ifal.uh.cu

²Medinat srl Clinic, Vía Fazioli 22, 60021 Camerano, Italy. Tel. +39 071 731076 Fax. +39 071 731347, E.Mail: gregorcuba@yahoo.it

³Pharmacology, D.I.S.M.A.R., University of Ancona, Italy. Tel. Fax. +39 071 7310076 E.mail: lambertore@univpm.it

La aterosclerosis representa una importante causa de muerte en el mundo occidental. El estrés oxidativo desempeña un papel central en la patogénesis de esta enfermedad. Se conoce que las especies reactivas del oxígeno son capaces de oxidar las lipoproteínas de baja densidad, las cuales son internalizadas por los macrófagos con la subsecuente formación de células espumosas. Por otra parte, el ozono a bajas dosis ha sido satisfactoriamente utilizado en el control de patologías asociadas al estrés oxidativo, como la enfermedad de las arterias coronarias. El objetivo del presente trabajo fue evaluar los efectos de la ozonoterapia sobre biomarcadores redox en un modelo experimental de aterosclerosis. El ozono (1 mg), mezclado con oxígeno como vehículo inocuo, fue administrado a conejos Nueva Zelanda Blancos por insuflación rectal durante 15 sesiones. Luego del tratamiento con ozono, fueron administrados 2 mL/kg de Lipofundin® de manera intravenosa durante 8 días consecutivos; posteriormente los animales fueron sacrificados. Los arcos aórticos fueron extraídos y teñidos con eosina-hematoxilina para los estudios histopatológicos. Los biomarcadores de estrés oxidativo y el perfil lipídico fueron determinados en suero mediante técnicas espectrofotométricas. Los resultados demostraron que el ozono tuvo efectos inhibitorios sobre la formación de lesiones aórticas. Por otra parte, fue observada una reducción ($p<0.05$) de los indicadores de daño a biomoléculas y un incremento de los sistemas antioxidantes. El perfil lipídico no fue modificado luego de un solo ciclo de tratamiento con ozono. Estos resultados refuerzan la hipótesis acerca de los efectos antioxidantes del ozono en el contexto de la aterosclerosis, demostrando las propiedades antiaterogénicas de este gas en las condiciones experimentales de este estudio.

Key: PL1 SPA

Tipo de participación: Presentación oral. Estudio pre-clínico.

Palabras clave: Ozonoterapia, aterosclerosis, estrés oxidativo, efectos antiaterogénicos, experimentación pre-clínica.

Plenary lecture

Effects of Ozone Therapy on Haemostatic and Oxidative Stress Index in Coronary Artery Disease.

Gregorio Martínez-Sánchez¹ Livan Delgado Roche² Arquímedes Díaz-Batista³ Gema Pérez-Davison¹ Lamberto Re^{1,4}

1. Medinat srl Clinic, Via Fazioli 22, 60021 Camerano, Italy. Tel. +39 071 731076 Fax. +39 071 731347, E.Mail: gregorcuba@yahoo.it
 2. Centro de Estudios para las Investigaciones y Evaluaciones Biológicas, Instituto de Farmacia y Alimentos, Universidad de La Habana, Calle 222 y Ave 27A No. 21425, La Coronela, La Lisa, CP 13600, La Habana, Cuba. Teléfono: 537-2719538, Fax: 537-2736811, E-mail: ldegado@ifal.uh.cu
 3. National Institute of Angiology and Vascular Surgery, Havana, Cuba.
 4. Pharmacology, D.I.S.M.A.R., University of Ancona, Italy. Tel. Fax. +39 071 7310076 E.mail: lambertore@univpm.it
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Coronary artery disease (CAD) is the most common cause of sudden death, and death of peoples over 20 years age. Because ozone therapy can activate the antioxidant system, improve blood circulation and oxygen delivery to tissue, the aim of this study was to investigate the therapeutic efficacy of ozone in patients with CAD, treated with antithrombotic therapy (AT), Aspirin® and policosanol. A randomized controlled clinical trial was performed with 53 patients divided into two groups: one (n=27) treated with AT and other (n=26) treated with AT plus rectal insufflation of O₃. A parallel group (n=26) age and gender matched was used as reference for the experimental variables. The efficacy of the treatments was evaluated by comparing haemostatic indexes and biochemical markers of oxidative stress in both groups after 20 days of treatment. Ozone treatment significant ($p<0.001$) improved prothrombin time when compared to AT group, without modify bleeding time. Combination TA+O₃ improve the antioxidant status of patients reducing biomarkers of protein and lipid oxidation, enhance total antioxidant status and modulate level of superoxide dismutase and catalase with a reduction in 57% and 32 % of SOD and CAT activities respectively, moving the redox environment to a status of low production of O₂[•] with an increment in H₂O₂ detoxification. No side effects were observed. These results show that medical ozone treatment could be a complementary therapy in the treatment of CAD and its complications.

Key: PL2 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Keywords: Ozone, coronary artery diseases, oxidative stress, aspirin, policosanol.

Plenary lecture

Is Therapeutic Ozone Genotoxic?

Silvia del Carmen Díaz Llera

Pharmacology and Toxicology Department, Pharmacy and Nutrition Institute, University of Havana, 21425, 23rd Ave and 222 St, La Coronela, Havana, Cuba. PO 13600. Phone: +537 267 9207. Telefax: +537 2603894. Email: sdlerra@infomed.sld.cu; sdl072004@yahoo.co.uk

Ozone is applied to diverse disturbances expressed through a deficit of antioxidant defences because of its proven effect to stimulate them. However, ozone has confirmed mutagenic effect in microorganisms and genotoxic activity in animal and human cells. The purpose of this work was to study the genotoxic activity of therapeutic ozone in different biomodels. Human cells were used *in vitro* and *ex-vivo*, as well as animal models and patients receiving therapy. Three levels of genetic damage were analysed: i) cytogenetic, by chromosomal aberrations in cultured human lymphocytes and micronuclei assay in animal and human cells, ii) primary lesions to DNA, as strand breaks using the Comet assay and iii) gene mutations, at hprt locus in primary human T-lymphocytes. It was shown that ozone is not clastogenic in patients, but induces DNA strand breaks in exposed cells *in vitro* and *in vivo*. It was also proven that the induced damage is caused by hydrogen peroxide (H_2O_2), its reactive intermediary, and that this damage declines after exposure. H_2O_2 induces a dose-dependent increase in mutant frequency at the human hprt locus. The majority of analyzed mutations are of the same type of those observed in T-cells *in vivo*. It is conclude that ozone therapy induces DNA damage that is not translated to cytogenetic damage. DNA damage is mediated by H_2O_2 and is recoverable. Ozone therapy does not impose a genetic threat to most patients.

Key: PL3 ENG

Type of Presentation: Oral Presentation. Review lecture.

Keywords: ozone, hydrogen peroxide, genotoxicity, mutagenicity, clastogenic damage, DNA strand breaks, Comet assay, hprt locus assay.

Conferencia Plenaria

¿Es Genotóxico el Ozono Terapéutico?

[Silvia del Carmen Díaz Llera](#)

Departamento de Farmacología y Toxicología, Instituto de Farmacia y Alimentos, Universidad de la Habana, Avenida 23 No. 21425 entre 214 y 222, La Coronela, La Lisa, La Habana, CUBA. CP 13600. Teléfonos: +537 267 9207. Telefax: +537 2603894.
Email: sdlerra@infomed.sld.cu; sdl072004@yahoo.co.uk

El ozono terapéutico se aplica a diferentes enfermedades que se manifiestan por un déficit en las defensas antioxidantes por su probado efecto estimulante. Sin embargo, éste tiene demostrado efecto mutagénico en microorganismos y genotóxico en células animales y humanas. Con este trabajo se pretende estudiar la actividad genotóxica de la ozonoterapia en diferentes biomodelos. Se utilizaron células humanas *in vitro* y *ex vivo*, así como modelos animales y pacientes recibiendo la terapia. Fueron analizados tres niveles de daño genético: i) citogenético mediante los ensayo de aberraciones cromosómicas en cultivo de linfocitos humanos y de micronúcleos en células animales y humanas, ii) daño primario al ADN por ruptura de cadena mediante el ensayo Cometa y iii) mutaciones génicas en el locus hprt de linfocitos T primarios humanos. Se demostró que el ozono no es clastogénico en pacientes, aunque induce rupturas de cadena en células expuestas *in vitro* e *in vivo*. Se observó que el daño inducido se produce a través de su intermediario reactivo: el peróxido de hidrógeno (H_2O_2) y que este daño declina después de la exposición. El H_2O_2 induce un incremento dependiente de la dosis de la frecuencia de mutantes en el locus hprt humano. La mayoría de estas mutaciones analizadas son del mismo tipo que las observadas en células T *in vivo*. Se concluye que la ozonoterapia induce daño primario al DNA que no se traduce en daño citogenético. El daño al ADN está mediado por la formación de H_2O_2 y es reversible. La ozonoterapia no impone un riesgo genético en la mayoría de los pacientes.

Key: PL3 SPA

Tipo de participación: Presentación oral. Revisión - Actualización.

Palabras clave: ozono, peróxido de hidrógeno, genotoxicidad, mutagenicidad, daño clastogénico, rupturas de cadena de ADN, ensayo Cometa, ensayo del locus hprt.

Plenary lecture

Efficiency of Ozonotherapy in Psychological Variables in the Fibromyalgia Treatment: A Pilot Study.

Rosa María Barceló Cortés¹, Azucena García Palacios.²

1 Doctor and Psychologist. Medical Private Center.

2 Psychologist. Senior teacher of the Jaume I University.

The chronic pain constitutes an important problem of health. A 19% of affected persons by the same problem have lost their job, and the 50% affirm that they feel to be losing their physical or intellectual capacities. In addition 3 of every 4 persons have been diagnosed of depression or anxiety. In the medical clinics one of the most frequent chronic pains is the fibromyalgia, classified as a rheumatic disease by The American College of Rheumatology. These patients meet submitted to a treatment multidisciplinarde of uncertain results. The aim of this work of investigation was to explore the usefulness of the ozone in the fibromyalgia.

A sample of 11 participants, have been submitted to the pass of 8 instruments of psychological evaluation, validated in Spanish population, that mesure the scales of pain, panic, affections, emotions, quality of life, fatigue and satisfaction of the treatment. During 20 setions there were applied ozone authohemoterapy and ther were evaluated by the same instruments on having finished the same one. The results were analyzed by the "Cohen's d Statistician".

An improvement was stated in the health, especially in all that concerns emotional and well-being parameters, and also a decrease in the perception of the negative parameters. In turn it appreciated interference less in the diary activities and of the work, as well a better feeling of their minds. In conclusion the ozonotherapy improved the quality of affected patients of fibromyalgia, reducing the perception of pain and fatigue, and the negative feeling of mind, increasing the emotional well-being, which was translated in turn in a reduction of the pharmatological daily drugs consumtion.

Key: PL4 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Keywords: fibromyalgia, ozonotherapy, instruments of psychological evaluation, authohemotherapy.

Conferencia Plenaria

Eficacia de la Terapia de Ozono en Variables Psicológicas en el Tratamiento de la Fibromialgia: Un Estudio Piloto.

Rosa María Barceló Cortés¹ Azucena García Palacios.²

1 Rosa M^a Barceló Cortés. Médico y Psicóloga. Practicante privado.

2 Psicóloga. Profesora titular de la Universidad Jaume I.

El dolor crónico constituye un importante problema de salud. Un 19% de las personas afectadas por el mismo han perdido su trabajo, y el 50% dice ver afectadas sus capacidades físicas o intelectuales; además 3 de cada 5 han sido diagnosticados de depresión o ansiedad. En las consultas médicas uno de los síndromes de dolor crónico más frecuente es la fibromialgia; clasificada como enfermedad reumática por el *American College of Rheumatology*. Estos pacientes se ven sometidos a un tratamiento multidisciplinario con resultados inciertos lo cual motivó el este trabajo de investigación, su objetivo fue explorar la utilidad del ozono en la fibromialgia. Una muestra de 11 participantes, se sometió a 8 instrumentos de evaluación psicológica, validados en población española, que medían escalas de dolor, de pánico, de afectos, de emociones, de calidad de vida, de fatiga, de satisfacción del tratamiento. Se les aplicó 20 sesiones de authohemoterapia, y se les evaluó con los mismos instrumentos al inicio y al final del estudio. Los resultados fueron analizados con el estadístico d de Cohen. Se constató una mejoría en la salud sobre todo en lo referente a parámetros emocionales y de bienestar y también una disminución en la percepción de los parámetros negativos sobre si mismos; a su vez se apreció una interferencia menor en las actividades diarias y del trabajo, así como un mejor estado de ánimo. En conclusión la ozonoterapia mejoró la calidad de vida de pacientes afectados de fibromialgia reduciendo la percepción de dolor y fatiga, y el estado de ánimo negativo e incrementando el bienestar emocional, lo que se tradujo a su vez en una reducción del consumo diario de fármacos.

Key: PL4 SPA

Tipo de participación: Presentación oral. Estudio clínico.

Palabras clave: Fibromialgia, ozonoterapia, instrumentos de evaluación psicológicos, authohemoterapia.

Plenary lecture

The Contributions of Ozone Therapy to Parkinson's Disease.

Francisco José Martín Florido

Doctor in Medicine and Surgery. Expertise in anti-aging medicine from the University of Seville. Expertise in Ozone Therapy from the University of Seville.
Director of the Clinic Medicentro in Huelva, Spain. Coordinator of Ozone Therapy courses at the University of Seville.
E-mail: francisomartin@grupomedicentro.com

Parkinson's Disease is a condition attributed to a degenerative process in the dopaminergic pathways, characterized by trembling, muscular rigidity, akinesia, alterations of posture and balance, steppage gait, lack of facial expression and excessive salivation. Although the cause of nigral degeneration and degeneration of the neostriatum is unknown, there exist theories which point to oxidative stress as the initial trigger. There exist a multitude of scales to evaluate a patient who suffers from Parkinson's disease: the Hoehn-Yahr scale, the Columbia University Rating Scale (CURS), the Activities of Daily Living scale (ADL), etc.

Currently, pharmaceutical medicines allow the sufferers of Parkinson's Disease to efficiently relieve the majority of their symptoms which, combined with various physiotherapeutic techniques and Ozone Therapy, let the patients maintain an acceptable quality of life. The objective of this study was to evaluate the effects of Ozone Therapy on the appearance and subsequent evolution of the disease. The present study began in April, 2011 and included 30 patients. The patients were classified in stages based upon the Hoehn-Yahr scale. 15 of these patients received Ozone Therapy by rectal insufflations or by autohemotransfusion, as well as maintaining their normal Parkinson's medications. The other 15 patients constituted the Control Group.

The study was structured to evaluate the results after one year of treatment; however a check was made after six months. The patients were evaluated using the CURS scale and the condition of specific activities of daily living (ADL). Preliminary results showed a drop in the items of the CURS scale in 60% of the patients and an improvement in the ADL in 50% in comparison to the Control Group. Since these are preliminary results, it would be premature to draw conclusions; however so far, everything leads us to believe that Ozone Therapy will have benefits for the quality of life of these patients and will reduce the progression of the disease by controlling oxidative stress.

Key: PL5 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Keywords: Oxidative stress, Ozone Therapy, Parkinson's disease.

Conferencia Plenaria

La Ozonoterapia en el Contexto de la Enfermedad de Parkinson.

Francisco José Martín Florido

Doctor en Medicina y Cirugía. Experto Universitario en Medicina Antienvejecimiento. Universidad Sevilla.
Experto Universitario en Ozonoterapia. Universidad Sevilla.
Director Clínica Medicentro. Huelva. España. Coordinador Curso Experto Universitario en Ozonoterapia. Universidad de Sevilla.
E-mail: franciscomartin@grupomedicentro.com

La Enfermedad de Parkinson es una afección atribuida al proceso degenerativo de las vías dopaminérgicas, caracterizado por temblor, rigidez muscular, acinesia, alteraciones de la postura, alteraciones del equilibrio, marcha festinante, facie inexpresiva y sialorrea. Aunque la causa de la degeneración de la sustancia negra y del cuerpo estriado es desconocida, hay teorías que apuntan al estrés oxidativo con desencadenante inicial. Existen multitud de escalas para valorar al paciente con Enfermedad de Parkinson: escala de Hoehn-Yahr, Escala CURS, afección de actividades de vida diaria (AVD) entre otras. Hoy en día los medicamentos permiten al enfermo de Parkinson aliviar eficazmente la mayor parte de sus síntomas, lo cual combinado con diferentes técnicas fisioterápicas y con ozonoterapia, permiten al paciente de Parkinson mantener una calidad de vida aceptable. El objetivo de este trabajo fue valorar el efecto de la ozonoterapia en la aparición y posterior evolución de la enfermedad.

El presente estudio se comenzó en Abril de 2011 e incluye a 30 pacientes. Los pacientes se catalogaron en estadios según la escala de Hoehn-Yahr. A 15 pacientes se aplicó ozonoterapia por vía rectal o autohemoterapia mayor, además de mantener su medicación antiparkinsoniana y los otros 15 fueron el grupo control. El trabajo está planteado para valorar resultados a 1 año, pero se ha hecho un corte a los 6 meses. Se evaluaron los pacientes con la Escala CURS y la afección de AVD específicas. Los resultados preliminares muestran una disminución de los indicadores de la escala CURS en un 60 % de los pacientes y una mejoría de las AVD en un 50 % en relación con el grupo control. Debido a que son resultados preliminares, es prematuro sacar conclusiones, pero todo hace pensar que la ozonoterapia mejorara la calidad de vida del paciente y reducirá la progresión de la enfermedad, mediante el control del estrés oxidativo.

Key: PL5 SPA

Tipo de participación: Presentación oral. Estudio clínico.

Palabras clave: Estrés oxidativo, ozonoterapia, enfermedad de Parkinson.

Plenary lecture

Effect of Ozone Therapy in Treating Toxoplasmosis in Cases with Recurrent Abortion (A Comparative Study).

Nabil Mawsouf¹, Amel M. Youssef², Azza B. Nashed² and Dina E. El-Tersawy²

1 Ozone Therapy Unit, National Cancer Institute, Cairo University.

2 Physical Therapy Department for Obstetrics and Gynecology, Faculty of Physical therapy, Cairo University.

It is known that toxoplasmosis is one of the parasitic diseases that can predispose to recurrent abortions. This study was performed to evaluate the possible role of ozone therapy versus standard medical therapy in the management of toxoplasmosis in cases of recurrent abortions. Thirty volunteer non-pregnant patients complaining from previous recurrent abortions were included in this study. Patients were randomly assigned into two equal groups. In group (A); the ozone group, medical ozone was administered by rectal insufflation in a volume of 250 mL – 300 mL and a concentration of 15 µg/mL– 35 µg/mL O₃ in O₂. They received six sessions per week for three weeks. In group (B); the medicine group, medical treatment was administered in the form of spiramycin 3 MIU tablets twice daily for three weeks. Evaluation of the efficacy of the therapy in both groups was done by measuring immunoglobulin M (IgM) level before and after the treatment. Showed highly significant decrease in IgM in ozone group (A). Ten cases (66.7%) recovered from toxoplasmosis infection. In the medicine group (B) the results showed significant decrease in IgM but, however only 4 cases (26.67%) recovered from toxoplasmosis infection. After treatment there was a highly significant decrease in IgM in the ozone group (A) compared to medicine group (B). Ozone therapy is an effective and safe therapeutic modality in management of toxoplasmosis. It can be considered as an alternative as well as adjuvant method for treating such cases.

Key: PL6 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Keywords: Ozone, Toxoplasmosis, Abortion.

Plenary lecture

Combined Technique of Ozonotherapy and Platelet Derived Growth Factors in the Knee Osteoarthritis.

Joaquín Cabot Dalmaut, M.D.

Knee Unit. Hospital Universitari de Bellvitge. Barcelona. Spain.
Hospital Quiron Barcelona. E.Mail: joaquin@drcabot.es

The basis for the utilization of Platelet Derived Growth Factors (PDGF) in Orthopaedic Surgery is outlined following the experience of our department. In particular, its use combined with Ozone in intraarticular administration in the knee and the rationale for this. We describe in detail the combined treatment with PDGF and Ozone in Osteoarthritis of the knee. A group of 57 patients (73 knees) is studied and the effect of this treatment on Tricompartmental Osteoarthritis (TO) and Patello-Femoral Syndrome (PF). Using the EVA-VAS score before and 6 months after the treatment, 82% are good in the first group (TO), increasing to 87% in the second group (PF). We highlight the indication for patients who are candidates for Total Knee Replacement (TKR) and wish to delay their surgical treatment and of younger patients with grade I-III Patello-Femoral Syndrome (Chondromalacia) who have not improved with other treatments. We note the effect on athletes who recover to their usual level of fitness. We conclude that this technique is a safe and effective option for the management of Osteoarthritis of the knee. We believe that combining both therapies leads to an additive effect and a safer profile than using them independently. (four years and more than 3000 injections). We finalize suggesting further work to support our findings.

Key: PL7 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Key words: PDGF, Oxygen-Ozonotherapy, Knee Osteoarthritis, Non surgical treatment.

Conferencia Plenaria

Técnica Combinada de Ozonoterapia y Factores de Crecimiento en la Artrosis de Rodilla.

Joaquín Cabot Dalmaut, M.D.

Jefe de la Unidad de Rodilla. Hospital Universitari de Bellvitge. Barcelona. España.
Director de COTA (Cirugía Ortopédica y Traumatología Avanzada). Hospital Quirón. Barcelona. E.Mail: joaquin@drcabot.es

Se describe las bases del empleo de los Factores de Crecimiento de origen Plaquetario (PRP) en los distintos campos de la Cirugía Ortopédica y Traumatología (COT) según nuestra experiencia, hasta su aplicación intraarticular en la rodilla, a la vez que se justifica el método. Se describe detalladamente la técnica de aplicación combinada de los PRP y el ozono en la artrosis de rodilla. Se estudia un grupo de 57 pacientes (73 rodillas), afectos de gonartrosis tricompartmental o de condropatía rotuliana, a los que se les aplicó dicho tratamiento. Se describen los primeros resultados obtenidos, que son buenos en el 82% de los primeros y en el 87% de los segundos. Se valora la escala EVA-VAS, antes y a los 6 m. después del tratamiento. Se resaltan las indicaciones especiales en pacientes candidatos a prótesis total de rodilla (PTR) que desean retardar dicha intervención así como en aquellos jóvenes afectos de condropatía grado I-III que no han mejorado con los tratamientos convencionales. Son también interesantes los deportistas que recuperan su nivel habitual anterior a la patología. Se concluye que se trata de una técnica de tratamiento efectiva en las artrosis de rodilla, se destaca la sencillez de la misma y lo interesante de combinar dos terapéuticas diferentes que no han revelado complicación alguna en los últimos 4 años con más de 3000 infiltraciones practicadas y que los resultados sugieren una mayor efectividad y seguridad que el empleo de cualquiera de ellas por separado. Por último se apuntan futuras vías de trabajo para soportar dicha tesis.

Key: PL7 SPA

Tipo de participación: Presentación oral. Estudio clínico.

Palabras clave: PDGF, PRP, ozonoterapia, artrosis de rodilla, tratamiento no quirúrgico

Plenary lecture

The Mechanism of Action of Ozonotherapy at a Molecular Level.

Velio Bocci, Ph.D.

Department of Physiology at the University of Siena, Italy

Among the variety of complementary medical approaches, oxygen-ozone therapy (OOT) is unique for having determined the mechanisms of action when ozone is mixed with human blood. Within a few minutes, ozone is entirely consumed partly by the plasma antioxidants and by reacting with polyunsaturated fatty acids. The two generated messengers as H₂O₂ (ROS) and alchenals (LOPs), mainly 4-HNE, have a basic relevance: the first activates immediately biochemical pathways in blood cells and the second, bound to Cys34 of albumin or to GSH as an adduct acts at the next stage. Indeed, after a few minutes, during the infusion of ozonated blood into the donor patient, alchenals, although undergoing dilution in the body fluids, a partial detoxification and either hepatic or renal excretion, display their crucial functions by informing a great variety of the body cells of a transient, acute oxidative stress. This activity qualifies ozonotherapy as a treatment able to resume the body antioxidant capacity gone astray.

Alchenals activate a nuclear transcriptional factor, called nuclear factor-erythroid 2-related (Nrf2) present, but inactive, in the cells cytoplasm bound to Keap-1 protein. After binding alkenals, this protein dissociates from Nrf2, which then enters into the cell nucleus where it forms a new complex with Maf protein and becomes able to interact with the antioxidant response element (ARE) on DNA. The consequent activation of about hundred genes allows the synthesis of several antioxidative enzymes (SOD, catalase, GSH-Px, etc) heat-shock proteins 32 (HO-1) and 70 and phase II enzymes. Already in 2008 we showed that HO-1 is one of the most protective enzymes:

Its action on heme procures a lipophilic antioxidant as bilirubin, CO as vasodilator and Fe²⁺ which is bound to transferrin.

This is the crucial molecular phase able to block the chronic inflammation typical of vascular diseases. The concept that ozonotherapy by inducing a controlled oxidative stress can induce an useful antioxidant response is about ten years old but so far the molecular mechanism remained hypothetical. Within the therapeutic range of ozone per ml of blood (0.21-1.68 mmol/mL of ozone per mL of blood), alchenals concentration at the tissue level is at best submicromolar and absolutely atoxic.

OOT is therefore the most active treatment for vasculopathies because it enhances:

- 1) Vasodilation of ischemic tissues.
- 2) A more intensive release of oxygen from oxyhemoglobin owing to the shift to the right of the haemoglobin dissociation curve.
- 3) A slightly activation of COX-2 enhances the selective release of prostacyclin (PGI2). It is also a platelet anti-aggregant and cooperated with NO and CO.
- 4) The release of growth factors from platelets which may help the healing of ulcers
- 5) The increased synthesis of antioxidants counteracts the chronic oxidative stress
- 6) A feeling of wellness in most of the patients, likely due to a stimulation of the neuro-endocrine system improves the quality of life.

In conclusion my message is that the classical ozonotherapy remains an effective and atoxic treatment. In such a case the blood and the gas volume as well as the ozone dosage are precisely calculated and the sequences of biochemical reactions are well defined, thus making the procedure reproducible, efficacious and safe. It is most unfortunate that some ozonetherapists, who now use the infusion of ozonated saline cannot control anything and when they use very low ozone concentrations (2-3 µg/mL), at best they make a placebo treatment but, if they use higher and variable ozone dosages, they put the patient's life at risk.

Key: PL8 ENG

Type of Presentation: Oral Presentation. Review lecture.

Key words: oxygen-ozone therapy, antioxidant enzymes, ozone dosages.

Plenary lecture

Treatment of Disk and Degenerative Pathologies of the Spine with Plasma Rich in Growth Platelet Inhibitors Factors.

Fernando Kirchner van Gelderen

Gabinet Medic Maresme, Mataró, Spain.

The good results referred by many authors in the treatment of degenerative diseases: Arthritis and Chondromalacia in the knee. Also in acute pathologies: fractures where speeds up time building bone, or muscles and tendons injuries prompted team Gabinet Médic Maresme (Mataró, Spain) to the application of Plasma Rich in Protein (PRP) for treatment in the vertebral column making mixed therapy with the placement of the intervertebral disk with subacute or chronic injury of protrusion or herniated disk (excluding extruded herniation) and, at the same time, to administer the Poor Plasma Protein (PPP) in posterior facet joint affected of overload or declared arthrosis clamping. The technique is done in surgery room, under sedation ambulatory medical control of anesthetic, with radioscopic C-arm image intensifier with high definition.

Previously we apply ozone both fractions of plasma to their implementation in a closed circuit, strict rules of asepsis, with antibiotic-therapy (2 g of Cefazolin as prophylactic dose).

It is this preliminary report on 98 clinical cases, both involving the lumbar spine as the cervical (December 2010-February 2012).

Our results:

- Regenerative potentiality of the PRPO₃ with early analgesic effect.
 - Regenerative capacity of posterior joints thanks to the double effect PPP more ozone.
 - Antiseptic effect of ozone on the disk and neighbor structures.
 - Technique ambulatory and minimally invasive with few risks.
 - Leave completely open to the possibility other treatments or more applications in consultation-room to the ideal point of clinical and functional outcome.
 - Satisfactory results in 85% of cases.
-

Key: PL9 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Keywords: Plasma rich-poor protein, ozone, disk, intervertebral joints, spine, growth factors.

Conferencia Plenaria

Tratamiento de las Patologías Discales y Degenerativas de la Columna Vertebral con Plasma Rico en Factores de Crecimiento Plaquetarios Ozonizados.

Fernando Kirchner van Gelderen

Gabinet Medic Maresme, Mataró, España.

Los buenos resultados referidos por muchos autores en el tratamiento de enfermedades degenerativas: artrosis y la condromalacia en la rodilla; patologías agudas: fracturas donde se acelera la consolidación ósea ó en lesiones musculares y tendinosas, impulsó al equipo del Gabinet Médic Maresme (Mataró, España) a una nueva aplicación del Plasma Rico en Proteínas (PRP) para el tratamiento en columna vertebral, realizando una terapia mixta, aplicando el PPRO₃(ozonizado) en disco intervertebral con lesión subaguda o crónica de protrusión o hernia discal (no las extruídas) y administrando, en el mismo tiempo, el PPPO₃ en las articulaciones interfascetarias afectas de sobrecarga o en declarado pinzamiento artrósico.

Esta técnica se realiza en quirófano bajo sedación ambulatoria, con control médico de la anestesista, teleguiadas con arco radioscópico en "C" de alta definición, ozonizando ambas fracciones del plasma inmediatamente antes de su aplicación en circuito cerrado y estrictas normas de asepsia con 2 g de Cefazolina.

Este informe preliminar sobre cincuenta casos clínicos, incluye la columna lumbar y cervical desde diciembre 2010 hasta febrero 2012 con 98 casos clínicos tratados.

Nuestros resultados:

- Potencialidad regeneradora del PRP-O₃ con repercusión analgésica temprana.
 - Capacidad regeneradora de las articulaciones posteriores debido al doble efecto PPP más ozono.
 - Efecto antiséptico del ozono sobre el disco y estructuras vecinas.
 - Carácter ambulatorio y mínimamente invasivo (con pocos riesgos) de esta técnica.
 - Deja totalmente abierta la posibilidad a otros tratamientos o a más aplicaciones en consulta hasta llegar al punto ideal de resultado clínico y funcional.
 - Resultados satisfactorios en el 85% de los casos.
-

Key: PL9 SPA

Tipo de participación: Presentación oral. Estudio clínico.

Palabras clave: Plasma rico-pobre en proteínas, ozono, disco intervertebral, articulaciones, columna, factores de crecimiento.

Plenary lecture

Ozone in Oncology. Clinical Experience and Research Areas at the Dr. Negrín University Hospital.

Bernardino Clavo^{*1,2,3,a,b}, Norberto Santana-Rodríguez^{*2}, Pedro Llontop^{*2}, Charlin Méndez^{*2}, Dominga Gutiérrez^{*1,2}, Dolores Fiúza^{*2}, Francisco Robaina^{*3}

Dr. Negrín University Hospital, Las Palmas (Canary Islands), Spain: * Strategic Program: Experimental models and translational research in regenerative medicine, ozone and nonpharmacologic therapies. ¹Dep. Radiation Oncology, ²Research Unit, ³Chronic Pain Unit. Email: bernardinoclavo@gmail.com / bernardinoclavo@terra.es a, ICIC (Canary Islands Institute for Cancer Research, Las Palmas, Spain). b, GICOR (Grupo Español de Investigación en Oncología Radioterápica, Madrid, Spain).

Partially supported by Grants: FUNCIS PI 98/31, FUNCIS PI 05/02 and FUNCIS ID 08/89 (from the Fundación Canaria de Investigación y Salud, Spain) and FIS INT 07/030, FIS INT 07/172, FIS EC 07/90024 and FIS 10/1485 (from the Instituto de Salud Carlos III -National Helth System-, Spain).

Goals: To show: 1) the potential usefulness of Ozone therapy in cancer patients; 2) clinical experiences and 3) research areas.O₃ in Oncology: could enhance the effects of Radiotherapy/Chemotherapy and to prevent or to treat their side effects. However, clinical trials are needed.

To enhance effect of RT/ChT. We will show: published preclinical works, relevance of tumor hypoxia and their modification, our clinical reports about modification of tumor hypoxia/ischemia in cancer patients and our experience with ozone therapy during Radiotherapy/Chemotherapy in the treatment of head and neck cancer and brain tumours.

To avoid a delayed commencement of Radiotherapy/Chemotherapy in patients with delayed wound-healing after cancer surgery.

*To treat toxicity by Radiotherapy/Chemotherapy:*delayed healing after Radiotherapy, delayed healing after Chemotherapy extravasation, radiation-induced hematuria, radiation-induced proctitis, radiation-induced brain injury

To prevent toxicity from Radiotherapy/Chemotherapy. Here, Ozone should to be administered before/during Radiotherapy/Chemotherapy ("ozone preconditioning"): Preclinical and clinical data and our related research in progress.

Additional clinical experiences with O₃:We will show further clinical works and experiences indexed in PubMed journals.

Our research areas with O₃:We will comment our research areas with O₃ in our Hospital: 1) already finished (head and neck, and brain tumors), 2) works in progress (disc herniation, lung transplantation), and 3) next researches (lung fibrosis, ictus and others).

Key: PL10 ENG

Type of Presentation: Oral Presentation. Review lecture.

Keywords:brain tumor, chemotherapy, delayed wound healing, head and neck cancer, headache, organ transplantation, ozone, radiotherapy, side effects, stroke.

Conferencia Plenaria

Ozono en Oncología. Experiencias y Líneas de Investigación en el Hospital Universitario de G.C. Dr. Negrián.

Bernardino Clavo^{*1,2,3,a,b}, Norberto Santana-Rodríguez^{*2}, Pedro Llontop^{*2}, Charlin Méndez^{*2}, Dominga Gutiérrez^{*1,2}, Dolores Fiuza^{*2}, Francisco Robaina.^{*3}

Hospital Univ. Dr. Negrián, Las Palmas (Isla Canarias), España: * Programa Estratégico: Modelos experimentales e investigación traslacional en medicina regenerativa, terapias con ozono y no farmacológicas. ¹ Sº de Oncología Radioterápica, ² Unidad de Investigación, ³ Unidad de Dolor Crónico. Email: bernardinoclavo@gmail.com / bernardinoclavo@terra.es ICIC (Instituto Canario de Investigación del Cáncer, Las Palmas, España). ^bGICOR (Grupo Español de Investigación en Oncología Radioterápica, Madrid, España).

Estudios parcialmente financiados por becas: FUNCIS PI 98/31, FUNCIS PI 05/02 y FUNCIS ID 08/89 (de la Fundación Canaria de Investigación y Salud, España) y FIS INT 07/030, FIS INT 07/172, FIS EC 07/90024 y FIS 10/1485 (del Instituto de Salud Carlos III -Sistema Nacional de Salud-, España).

Objetivos: Mostrar: 1) la potencial utilidad de la Ozonoterapia en pacientes oncológicos; 2) experiencias clínicas del Hosp. Univ. Dr. Negri, publicadas, y 3) líneas de investigación.

El O₃ en Oncología: podría *potenciar la Radioterapia/Quimioterapia* y prevenir o tratar sus efectos secundarios. Pero para demostrar finalmente su utilidad, se precisa la realización de ensayos clínicos.

Potenciar el efecto de la Radioterapia/Quimioterapia. Presentaremos: trabajos pre-clínicos sobre el efecto directo e indirecto del O₃ en tumores, breve revisión de la importancia de la hipoxia tumoral y su modificación y nuestros trabajos clínicos y experiencia con O₃ durante la Radio/Quimioterapia en pacientes con tumores de cabeza y cuello y con tumores cerebrales.

Evitar retrasos en el inicio de la Radioterapia/Quimioterapia en pacientes con retardos de cicatrización tras la cirugía oncológica.

Tratar la toxicidad de la Radioterapia/Quimioterapia. Mostraremos experiencias en: retardos de cicatrización post-Radioterapia, retardos de cicatrización tras extravasación de Quimioterapia, Hematuria radio-inducida, Proctitis radio-inducida y Toxicidad cerebral radio-inducida (o isquémica).

Prevenir toxicidad de Radioterapia/Quimioterapia. Comentaremos: Datos pre-clínicos y clínicos de investigadores de Cuba, Próximos proyectos de investigación sobre daño renal o pulmonar por Quimioterapia.

Otras experiencias clínicas con O₃: Mostraremos otras experiencias clínicas y trabajos de nuestro centro publicados en revistas indexadas en PubMed.

Nuestras líneas de investigación con O₃: Comentaremos brevemente líneas de investigación con O₃ de nuestro centro: 1) ya realizadas (en tumores de cabeza y cuello, tumores cerebrales), 2) actualmente en marcha (hernias de disco, trasplante de pulmón), 3) próximas (fibrosis pulmonar, ictus).

Key: PL10 SPA

Tipo de participación: Presentación oral.Revisión – Actualización.

Palabras clave:cáncer de cabeza y cuello, cefalea, efectos secundarios, ictus, ozono, quimioterapia, radioterapia, retardo de cicatrización, trasplante de órganos, tumor cerebral.

Plenary lecture

The Effects of Ozone Therapy in Conjunction with Vaccination Immunotherapy for Malignant Brain Tumor: Case Study.

[Aubrey Clint Folsom](#)¹, Adriana Schwartz Tapia²

1 World Cancer Center, clintfolsom3@aol.com

2 Director of Clínica Fiorela, Madrid / San Pedro Sula, Spain/Honduras. President of AEPROMO.President of IMEOF.Secretary ISCO3.adriana@aepromo.org

Oxygen/ozonotherapy is a well established integrative therapy which can result in stimulation of the immune and healing systems, improvement of blood circulation and oxygen delivery to ischemic and neoplastic tissues, improvement of the general metabolism, correct the chronic oxidative stress by upregulating the antioxidant system and procure an estate of well-being in patients by activating the neuro-endocrine system. Dendritic cell vaccines are currently being used to help treat various forms of cancer, including brain cancer. The objective of this paper is to present a case report of a patient who has received both ozone and dendritic cell vaccine to treat glioblastoma multiform tumor.

A 66 year old male presented with a grade 4 glioblastoma multiform tumor. MRI showed a tumor of 70 mm size. Dendritic cell vaccine therapy was administered. Briefly, dendritic cells were separated from whole blood using Ficol-Hypaque density centrifugation. Cells were grown out and a feeding schedule with appropriate cytokines was used. Cells were then exposed to whole tumor lysate to engender immunologic response. Cell vaccines were administered on a biweekly schedule for a total of three courses.

The patient undergoes a cycle of 20 sessions of ozone therapy via rectal insufflations and autohemotherapy at 12 to 25 µg/mL concentration of the O₂-O₃ mixture. Dose: 1.2 mg to 2.5 mg. During the vaccine treatment the patient developed pneumonia. Subsequently, additional 10 ozone therapy sessions were administered. The tumor for the patient has gone from 70mm and to 60 mm after ozone therapy. In conclusion, ozone therapy would appear to be a promising adjunct treatment with dendritic cell vaccine for the treatment of cancer tumors.

Key: PL11 ENG

Type of Presentation: Oral Presentation. Case Report.

Keywords: Ozone therapy, dendritic cell vaccine, glioblastoma.

Plenary lecture

Ozone-Oxygen Injections in Acupuncture Points: A New Approach.

Susanne Rodekohr

Zamora 39 A, Col. Condesa, 06140 Mexico City, Mexico, susannerodekohr@mac.com

One of the application routes of ozone-oxygen therapy is the subcutaneous or muscular route with analgesic and anti-inflammatory effects, performed today peri-articularly and in trigger points. Acupuncture needling consists of using specific and locally defined acupuncture points for a broad gamma of diseases, among others in analgesia. The depth of needling acupuncture points normally reaches the subcutaneous or muscle tissue depending on the anatomic localization of the point and the insertion technique. Injection of substances in acupuncture points is common with the aim of reinforcing the acupuncture effect, using for example: sodium chloride solution, sterile water, vitamins, plant-based drugs, homeopathic remedies or conventional medicines. Bocci calls the injection of ozone in acupuncture points: "chemical acupuncture" and he refers principally to the injection of trigger points or paravertebral points, which can coincide with acupuncture points. This new approach uses the acupuncture points and stimulates them by injecting the mixture of ozone and oxygen. This technique should generate the ozone effect on local tissue metabolism and the scientifically proven effect of acupuncture, as well as achieve results in terms of Traditional Chinese Medicine, an ancient, philosophic, non-scientific theory of diseases and their treatment with more than 2000 years of experience, thus enhancing the treatment success, for example in analgesia using local and distant points from the region of pain.

Key: PL12 ENG

Type of Presentation: Oral Presentation. Review lecture.

Keywords: Ozone Therapy, Acupuncture, Pain, Analgesia, Traditional Chinese Medicine, Injection, Complementary Medicine

Conferencia Plenaria

Inyecciones de Ozono – Oxígeno en Puntos de Acupuntura: Un Nuevo Abordaje.

Susanne Rodekohr

Zamora 39 A, Col. Condesa, 06140 Mexico City, Mexico, susannerodekohr@mac.com

Una forma de aplicación en la terapia con ozono-oxígeno es la inyección subcutánea o intramuscular de la mezcla de gases de ozono-oxígeno con efectos analgésicos y antiinflamatorios, que se lleva a cabo hoy en día peri articular o en puntos gatillo. La práctica de la Acupuntura consiste en usar puntos específicos con una localización definida para una gran cantidad de padecimientos, entre otros en la analgesia. La profundidad de la inserción de la aguja normalmente alcanza el tejido subcutáneo o muscular, dependiendo de la localización anatómica del punto y la técnica de inserción. Inyecciones de sustancias en puntos de acupuntura son comunes con la meta de reforzar el efecto del punto de acupuntura, utilizando por ejemplo: solución salina fisiológica, agua estéril, vitaminas, fitofármacos, remedios homeopáticos o medicamentos convencionales. Bocci llama la inyección de ozono en puntos de acupuntura: "acupuntura química" y se refiere principalmente a la inyección en puntos gatillo o en puntos paravertebrales, que pueden coincidir con puntos de acupuntura. Este nuevo abordaje utiliza los puntos de acupuntura y los estimula inyectando la mezcla de ozono-oxígeno. Esta técnica debería generar el efecto local del ozono sobre el metabolismo del tejido y el efecto científicamente comprobado de la acupuntura y obtener resultados en términos de la Medicina Tradicional China, que es una teoría antigua, filosófica, no científica de las enfermedades y sus tratamientos con más de 2000 años de experiencia, mejorando así el éxito del tratamiento, por ejemplo en la analgesia, utilizando puntos locales y distales del sitio de dolor.

Key: PL12 SPA

Tipo de participación: Presentación oral.Revisión – Actualización.

Palabras clave: Ozonoterapia, Acupuntura, Dolor, Analgesia, Medicina Tradicional China, Inyección, Medicina Complementaria.

Plenary lecture

Use of Ozone and Ozonized Growth Factors in Dogs. Clinical Cases.

Mercedes Hernández Avilés (SPA)

Veterinary Clinic DRAMP.

Objective: Assess the effectiveness of ozone, ozonized growth factors and ozonized oil in the antialgic therapy of coxoarthritis and in torpid ulcer epithelization.

Method: Two groups of dogs are selected. The first group shows coxoarthritis, intense pain, lameness, reduction in activity and incompatibility with anti-inflammatory drugs and surgery. The second group consists of dogs with severely infected, necrotic ulcers, with a great loss of tissue.

Materials: Ozone generator, centrifuge, platelet-rich plasma, fungible material, ozonized oil.

Procedure: Coxoarthritis group: 3 sessions (one every two weeks) are administered on the following basis: 2 mL of ozonized growth factors at 50 µg/mL, plus 2 mL of ozone at 8 µg/mL into the affected coxofemoral joint, plus 2 mL of ozone at 8 µg/mL in aching lumbar points. Torpid ulcer group: the ulcer is revived, rinsed with ozonized water and injected at different intralesional points with ozone at 8 µg/mL. In all cases, ozonized oil is prescribed with a peroxide index of 800 y 400, and Mayor Autohemotherapy is performed at 15 µg/mL in 3 sessions, and in one case ozonized growth factors are injected in 3 sessions at 50 µg/mL.

Results: First group: in all the animals, there was a marked reduction in pain. 80% did not limp any longer and could run again. In 20%, lameness was reduced and activity increased. Second group: Complete epithelization.

Conclusions: Treatments with ozone and ozonized growth factors constitute a highly effective alternative against joint pain and necrotic ulcers, wherein lack of tissue becomes a severe issue.

Key: PL13 ENG

Type of Presentation: Oral Presentation. Clinical Trial – Veterinary.

Keywords: Coxofemoral pain. Torpid ulcers. Ozone therapy. Ozonized growth factors. Ozonized oil.

Conferencia Plenaria

Utilización de Ozono y Factores de Crecimiento Ozonizados en la Especie Canina. Casos Clínicos.

Mercedes Hernández Avilés (SPA)

Clinica Veterinaria DRAMP, España.

El dolor articular y las úlceras tórpidas constituyen presentaciones habituales en medicina veterinaria. El objetivo del presente trabajo fue valorar la eficacia del ozono, los factores de crecimiento ozonizados y el aceite ozonizado en la terapia antiálgica de la coxoartrosis y en la epitelización de úlceras tórpidas. Se seleccionan dos grupos de perros. Primer grupo: presentó coxoartrosis, dolor intenso, cojera, disminución de actividad, incompatibilidad con antiinflamatorios y cirugía. Segundo grupo: perros con úlceras necrosadas muy infectadas y gran pérdida de tejido. Materiales: Generador de Ozono, centrífuga, plasma rico en plaquetas, material fungible, aceite ozonizado.

Procedimiento: Grupo con coxoartrosis: se aplicaron 3 sesiones (una cada dos semanas) de 2 mL de factores de crecimiento ozonizados a 50 µg/mL, más 2 mL de ozono a 8 µg/mL en articulación coxofemoral afectada, más 2 mL de ozono a 8 µg/mL en puntos dolorosos lumbares. Grupo con úlcera tórpida: se reavivó la úlcera, se lavó con agua ozonizada y se inyectó en diferentes puntos intralesionales con ozono a 8 µg/mL. En todos los casos se indicó aceite ozonizado con índice de peróxido de 800 y 400 y se realizó Autohemó mayor a una concentración de 15 µg/mL en 3 sesiones, y en un caso se inyectó en 3 sesiones, factores de crecimiento ozonizados a una concentración de 50 µg/mL.

Resultados: Primer grupo: en todos, el dolor disminuyó considerablemente. El 80% dejaron de cojear y volvieron a correr. En el 20% disminuyó la cojera y aumentó la actividad. Segundo grupo: Epitelización completa.

Conclusiones: Las terapias con ozono y factores de crecimiento ozonizados constituyen una alternativa muy eficaz para combatir el dolor articular y las úlceras necrosadas, donde la falta de tejido es un grave problema.

Key: PL13 SPA

Tipo de participación: Presentación oral. Estudio clínico – Veterinario.

Palabras clave: Dolor coxofemoral. Úlceras tórpidas. Ozonoterapia. Factores de crecimiento ozonizados. Aceite ozonizado.

Plenary lecture

Head and Neck Pain.Therapeutic Role of Ozonotherapy.

F. Javier Hidalgo Tallón (SPA).

Clinalgia.Avd.Libertad, 3, Murcia.

The application of ozone, by infiltration, has been widely used for pain treatment since the eighties. Ozone is able to improve the pain due to myositis, arthritis, tendinitis, bursitis and enthesitis. (1-3) It is believed that the mechanisms of action of ozone at this level is its oxidizing ability to block at both levels, the receptors and peripheral neuromodulators; in addition, ozone locally applied also improves the antioxidant capacity of the medium. (4)

Systemic ozone has demonstrated its usefulness in improving tissue oxygenation in general and especially at neuromuscular level. (5) Ozone therapy, both local and systemic can be useful in the pathology of temporomandibular disorders, although the level of scientific evidence is scarce due to lack of studies in this area. A recent study has demonstrated the utility of intra-articular ozone therapy, combined or not with systemic ozonotherapy applied rectally, in the treatment of rheumatoid arthritis of the temporomandibular joint.(6)

We believe that the dentist expert in cranium-mandibular pain can benefit his patients using ozone therapy in his daily practice. The aim of the conference is to inform dentists of the utility and foundations of ozone therapy, local and systemic, in the treatment of facial and cranium-mandibular pain.

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Key: PL14 ENG

Type of Presentation: Oral Presentation. Review lecture.

Keywords: Ozone – Oxygen Therapy, Pain, Head pain, Neck pain

Plenary lecture

Individualization of Infusion Therapy with Oxygen Reactive Forms.

Sergey Peretyagin, ¹Kostina O.V., ¹ Martusevich A.A., ¹ Struchkov A.A., ¹ Bitkina O.A.²

Nizhny Novgorod Institute of Traumatology and Orthopaedics, State medical Academy. 2. Research institute of skin venereal diseases.

Balance of pro- and antioxidant systems is individually determined parameters of organism homeostasis. On the base of this thesis, estimation of lipoperoxidation level and antioxidant activity of treated patients may be useful for individualization of intravenous injection of ozonized solutions. This methodology allows investigating metabolic reaction on pro- or antioxidant systemic use. That is why the aim of this work was the development of the individualization scheme of infusion ozone therapy.

Infusion ozone therapy (intravenous injections of ozonized solution of sodium chloride) was applied at 112 patients with thermal trauma (main group 23-64 years old; burns of II-III degree at 15-64 body square percents). Control group (n=72) includes patients with comparable trauma (26-71 years old; burns of II-III degree at 17-58 body square percents) and were treated by tradition algorithms. State of pro- and antioxidant systems of patients' blood was controlled with biochemiluminescence analysis (BHL-06 or 07, Russia). Indications for parenteral ozone therapy were clinical signs of hypoxia (elevation lactate level; decreasing of lactate dehydrogenase activity; hypoxemia), toxemia with endotoxicosis presence (increasing of glucose, creatinin and urea level and concentration of middle weight molecules and fibrin degradation products with lipoperoxidation intensification), haemodynamic (hypokinetic type of haemodynamics, microcirculatory changes) and respiratory disorders. Data statistic processing was executed by traditional algorithms with special software (Statistica 6.0; SPSS 11.0).

We fixed pathological changes of pro- and antioxidant balance with oxidative stress signs in all examined patients of main and control groups. There were lipoperoxidation activation (at 2 times as comparison with healthy peoples), decreasing of antioxidant resources (at 25% to healthy peoples) and deposition of primary, intermediate and terminal products of lipid oxidation in the blood. Individualization of ozone dose was executed by reaction of patient's blood on different ozone-contained physiological solutions (ozone doses – 1 000, 3 000, 5 000, 10 000 µg/L). Use of systemic intravenous ozone therapy by ozonized NaCl solution for patients of main group lead to more effective and rapidly eliminates the metabolic disorders. We observed stimulation of blood antioxidant potential at 82% to initial state ($p < 0.05$). Glucose level was decreased at 59% to first day after trauma. Creatinin level was reduced from 3 times to healthy people (first day after burn) to normal value (after full parenteral ozone therapy complex use). It was stated, that proposed methods of individualization of systemic ozone use is useful for optimization of infusion therapy at patients with thermal trauma.

Key: PL15 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Keywords: Ozone – Oxygen therapy, ozonized NaCl solution, Antioxidant pro- oxidant balance, burn.

Plenary lecture

Clinical Experience in the Treatment of Epidemic Hemorrhagic Conjunctivitis with Oleozon® Collyrium.

Mirta Copello Noblet¹, Silvia Menéndez², Adriana Schwartz Tapia.³

1. National Reference Center of Retinitis Pigmentosa."Dr. Salvador Allende" Clinical Hospital, Havana, Cuba.E-mail: mirta.copello@infomed.sld.cu

2. Ozone Research Center.Havana, Cuba. E-mail: silviamenendez@infomed.sld.cu

3. M.D. Gynecologist, President of AEPROMO, President of International Medical Federation of Ozone Therapy (IMEOF), ISCO3 secretary. Director Fiorela Clinic (1). Av. Juan Andrés 60, Local 1 Bajo izda. 28035 Madrid- Spain. adriana@aepromo.org; www.clinicafiorela.com; www.aepromo.org

Epidemic Hemorrhagic Conjunctivitis (EHC) is a self-limited, conjunctiva inflammation of viral etiology which affects all ages and takes place in epidemic form. Its main symptoms are sensation of foreign bodies, lacrimation, photosensitivity, general discomfort and pain. Its critical signs are subconjunctival hemorrhages, follicular reaction and pre-auricular adenopathy. Also, serous secretion, chemosis, superficial punctate keratitis and palpebral ptosis are observed. Taking into account the broad spectrum germicide power of OLEOZON (ozonized sunflower oil), as well as its degree of anti-inflammatory character, the aim of this study was to evaluate the effectiveness of this medication in its collyrium form for the treatment of EHC. In "Dr. Salvador Allende" Clinical Hospital, 20 patients were treated with EHC in October, 2009. Twelve of them received treatment with OLEOZON collyrium (one drop twice per day) and 8, making up the control group, received conventional treatment (cold compresses, non steroidial anti-inflammatory drugs, yodoxuridine in collyrium or recombinant alfa-2b interferon). All patients treated with OLEOZON underwent a fast evolution toward recovery. In 72 h, they showed signs of great improvement and in 1 week they were totally cured. No patients presented complications. In the control group the evolution was more prolonged, mainly in patients showing complications (3 with keratitis). Treatment of EHC with OLEOZON collyrium provides with very positive results in this disease.

Key: PL16 ENG

Type of Presentation: Oral presentation. Clinical Trial.

Keywords: ozone, Epidemic Hemorrhagic Conjunctivitis, conjunctiva, OLEOZON, ozonized oils.

Conferencia Plenaria

Experiencia Clínica en el Tratamiento de la Conjuntivitis Hemorrágica Epidémica con Oleozon® Colirio.

Mirta Copello Noblet¹, Silvia Menéndez², Adriana Schwartz Tapia.³

1. Centro de Referencia Nacional de Retinosis Pigmentaria. Hospital Docente "Dr. Salvador Allende", Habana, Cuba. E-mail: mirta.copello@infomed.sld.cu

2. Centro de Investigaciones del Ozono. Habana, Cuba. E-mail: silviamenendez@infomed.sld.cu

3. M.D. Gynecologist, President of AEPROMO, President of International Medical Federation of Ozone Therapy (IMEOF), ISCO3 secretary. Director Fiorela Clinic

(1). Av. Juan Andrés 60, Local 1 Bajo izda. 28035 Madrid- Spain. adriana@aepromo.org; www.clinicafiorela.com; www.aepromo.org

La Conjuntivitis Hemorrágica Epidémica (CHE) es una inflamación conjuntival de etiología viral, autolimitada que afecta a todas las edades y cursa de forma epidémica. Sus síntomas fundamentales son sensación de cuerpo extraño, lagrimeo, fotosensibilidad, malestar general y dolor. Sus signos críticos son hemorragias subconjuntivales, reacción folicular y adenopatías pre auriculares. También se observa secreción serosa, quémosis, queratitis superficial punteada y ptosis palpebral. Teniendo en cuenta el poder germicida de amplio espectro del OLEOZON (aceite de girasol ozonizado), así como su cierto carácter antiinflamatorio, el objetivo de este trabajo fue evaluar la efectividad de este medicamento en su forma de colirio para el tratamiento de la CHE. En el Hospital Docente "Dr Salvador Allende" fueron atendidos 20 pacientes con CHE en Octubre del 2009. De ellos 12 recibieron tratamiento con OLEOZON colirio (1 gota dos veces al día) y 8 conformaron el grupo control los cuales recibieron tratamiento convencional (fomentos fríos, antinflamatorios no esteroideos, yodoxuridina en colirio ó interferón alfa-2b recombinante). Todos los pacientes tratados con OLEOZON tuvieron una rápida evolución hacia la curación. A las 72 h mostraban signos de gran mejoría y a la semana estaban totalmente curados. Ninguno de los pacientes presentó complicaciones. En el grupo control la evolución fue más prolongada, fundamentalmente en los pacientes que presentaron complicaciones (3 con queratitis). El tratamiento de la CHE con OLEOZON colirio brinda resultados muy positivos en esta patología.

Key: PL16 SPA

Tipo de participación: Presentación oral. Estudio clínico.

Palabras clave: ozone, conjuntivitis hemorrágica epidémica, conjunctiva, Oleozon, aceites ozonizados.

Plenary lecture

Ozone Therapy for Viral Hepatitis.What Can be Expected?

Heinz Konrad

Private Medical Office, São Paulo, Largo Como 330, São Paulo 04922-130, BRASIL, konrad@sti.com.br

The author introduced ozone therapy (OT) into Brazil in 1975 and is the pioneer of ozone therapy in this country. The author presents what, based on his clinical observations during 37 years, *can be expected* from ozone therapy and *how it should be given*, in cases of acute or chronic viral hepatitis. The author has neither the setup, nor the desire or purpose of doing laboratory research work, biochemical analyses, microbial research, etc., thus justifying the pure clinical and observational nature of this paper. Acute viral hepatitis (A, B, C) patients should receive OT as soon as possible, in the form of Major Auto-Hemotherapy (MAHT). Rectal ozone insufflation may be reserved for patients who cannot or may not receive MAHT. The criteria to evaluate the efficacy of OT for acute viral hepatitis are: the evolution, i.e. the decrease of the transaminases (TGO, TGP, Gamma-GT), the decrease of bilirubin and alkaline phosphatase, and the patient's clinical (subjective) well-being. Normally two MAHT weekly will suffice, with 6.000 micrograms of ozone per session. A total number of six sessions will suffice in most cases. The usual restrictions regarding diet and heavy exercising continue recommendable. Lab control should be done after six OT sessions. Treatment may be extended if necessary. The chance of chronification of an acute viral hepatitis seems very much reduced if the patient receives OT from the very beginning of the disease.

For chronic viral hepatitis (B or C) the author recommends longer treatment, with two OT sessions weekly, for at least six weeks. A significant reduction of transaminases will normally occur, along with improvement of the patient's general well-being. OT "maintenance" is recommended at least for another six months, testing the transaminases monthly. The frequency of OT sessions during this "maintenance" phase may vary from one to three sessions per month. *Viral load* negativation may or may not occur, but should *not* be the goal of this treatment, as it may vary immensely and behave erratically. There seems to be no sure explanation for this as yet. Even after OT, the viral load may have become negative, but turn positive again after some months, as so often observed also with the "conventional" treatments. The author suggests that an *achievable goal* of OT may be to reach a "peaceful coexistence" between virus and host.

Key: PL17 ENG

Type of Presentation: Oral presentation. Review lecture.

Keywords: ozone, acute hepatitis, chronic hepatitis, viral infections.

Plenary lecture

The Low-Dose Ozone Concept: Signal Transduction and Bioregulation Through “Ozone Peroxides” as Second Messenger Molecules.

Renate Viebahn-Hänsler

Medical Society for the Use of Ozone in Prevention and Therapy, Germany. Secretary's office: Nordring 8, D-76473 Iffezheim/Baden-Baden. E-mail: renateviebahn@t-online.de

The classical indications for systemically administered medical ozone have one general phenomenon in common: oxidative dys-stress, mostly chronic oxidative dys-stress (chronic vascular inflammation, diabetes, pain syndrome, rheumaoid arthritis, and - last but not least - cancer), initiated and maintained by an excess of oxygen radicals (superoxide radicals O_2^- , hydrogenperoxide H_2O_2 , $\cdot OH$ -radicals..). As one of the consequences, the downregulated and/or insufficient cellular antioxidant system (superoxide dismutase (SOD), catalase (CAT) and others) supports the chronic inflammatory process.

Key question: How can ozone help to interrupt this vicious circle? Why does ozone, as one of the most powerful oxidants, not contribute to oxidative dys-stress but on the contrary to oxidative eu-stress? This is the central question for understanding the pharmacology of medical ozone and the therapeutical effects of ozone therapy.

Pharmacology and results: Although reactive oxygen species (ROS) themselves, membrane-associated “ozone peroxides” (less aggressively than the O_2^- and H_2O_2), act as second messengers via cysteine residues and/or reduction through glutathion (GSH), and take over regulation of the antioxidants, bypassing SOD and CAT consumption. As redox signal, the short-chain hydroxy-hydroperoxide with its low tendency to radical reactions can initiate the regulation of antioxidant protective mechanisms via the nuclear factors Nrf2 and immunomodulation via NFkB in stress and inflammation processes. Pathological concentrations of stress-relevant parameters (H_2O_2 , MDA malone dialdehyde, TH total hydroperoxide...) decrease significantly following systemic ozone treatment (low-dose concept), cellular antioxidants are regulated. This basic pharmacological principle is shown in an open and comprehensive layout, and relevant parameters for daily practice are recommended enabling both doctor and patient to control the treatment process.

Key: PL18 ENG

Type of Presentation: Oral presentation. Review lecture.

Keywords: Ozone, peroxides, oxygen radicals, oxidative stress, antioxidant regulation.

Plenary lecture

Changes in Arterial Stiffness-Distensibility and Cardiovascular Risk Factors (Franingham) after Major Autohemotherapy with Oxygen-Ozone.

Luis David Suárez Rodríguez, Alfonso Apolinar Menendez

Centro de Medicina Integrativa SANAR SC. Calle 10 Bis Mza 57 Lt 3 Col. Centro CP 77710, Playa del Carmen, Quintana Roo, México.
doctor.suarez@gmail.com

The purpose of study was to determine the influence of major autohemotherapy with oxygen-ozone over arterial stiffness-distensibility, estimated by changes in the components of the digital volume pulse wave and its second derivative, and upon cardiovascular risk factors as determined by photoplethysmography (PTG) and bioimpedance analysis using the Es Teck Sensor Analyzer.

This was an auto-controlled, open, observational, retrospective and longitudinal study with 25 participants –with elevated risk factors for arterial stiffness-, which were selected from our patients during 2011 and 2012. Each patient had at least two recordings, one prior and the other after 10 major autohemotherapies with oxygen-ozone [O_3]= 10 to 14 µg. The ages of the participants range from 30 to 65 years. All evaluations were performed with the Es Teck Sensor Analyzer, (L.D.Technology. ISO 13485). This technology uses PTG to asses Digital Volume Pulse (DVP) and calculates the second derivative of the digital volume pulse wave to determine the following indexes: RI_{DVP} reflectionindex of the DVP; SI_{DVP} arterial stiffness index for central vessels, and AIG or arterial aging index. The equipment also calculates Systemic Vascular Resistance (SVR), Stroke Volume (SV), Cardiac Output (Q) among other cardiac performance parameters. Changes in overall cardiovascular risk factors according to the Franingham study are also evaluated using bioimpedance and PTG.

Using multivariate analysis with ANOVA we found statistically significant differences between both groups, before and after ozone therapy, being each individual its own control. In the reflection index RI_{DVP}, ($p=0.02$), the SI_{DVP} ($p=0.03$). The rest of the indexes concerning the first derivative did not have a statistically significant change. As for the second derivative, we found statistically significant differences in the AIG index, ($p=0.022$), in the b/a index ($p=0.003$). The results for the d/a index were also significant $p=0.001$. Major autohemotherapy with oxygen-ozone was significantly correlated with acute changes in the stiffness-distensibility indexes for small and large arteries, as well as the AIG index. These changes were probably related to increases in nitrous oxide concentration and possibly reflect a reduction of atherosclerotic plaque upon small and large arteries. The mechanisms by which ozone produces these changes need further evaluation.

Key: PL19 ENG

Type of Presentation: Oral Presentation. Review lecture.

Key words: Ozonotherapy, arterial stiffness-distensibility, cardiac risk factors.

Plenary lecture

Treatment for Radicular Compression.Experience of 492 Cases in Bolivia.

Ramiro Alvarado

Neurosurgeon, Police Hospital and Arco Iris Hospital, La Paz, Bolivia.Casilla 1701 La Paz Bolivia.ralvarado.bo@gmail.com

This study reports the experience in Bolivia from August 2003 to June 2012. Were treated 492 patients with radicular compression at cervical, thoracic and lumbar level 285 males and 207 females. First was performed intra discal injections, the discolisis, of ozone at 30 µg/mL followed by 15 or 20 paravertebral injections at 20 µg/mL.

Among the 492 patients with radicular compression were observed that sensory and motor dysfunction were completely abolished in 335 patients (68%) improved in 98 patients (20%) and with poor results and the dysfunction remained unchanged in 59 patients 12% some of them underwent surgical treatment. However 433 patients obtained excellent and good results 88%.

With the treatment of ozone therapy is possible to obtain excellent and good results in 88 % of the cases. Ozone is a useful alternative the effectiveness using this minimal invasive method can avoid complications like fail back syndrome.

Key: PL21 ENG

Tipo de Presentación: Oral. Oral Presentation. Review lecture.

Key words: Radicular compression, ozone therapy, nucleolysis, ozone.

Conferencia Plenaria

Tratamiento de la Compresión Radicular. Experiencia de 492 casos en Bolivia.

[Ramiro Alvarado.](#)

Neurocirujano, Hospital Arco Iris y Hospital Policial, La Paz, Bolivia. Casilla 1701 La Paz Bolivia. r.alvarado.bo@gmail.com

Se presenta la experiencia de Ozonoterapia en Bolivia desde Agosto de 2003 a Junio 2012, con 492 pacientes portadores de hernias discales a nivel cervical, torácico y lumbar.

Se trataron 492 pacientes con compresión radicular a nivel cervical, torácico y lumbar: 285 varones y 207 mujeres. Primero se realizó la inyección intradiscal, la discolisis, utilizando una mezcla de oxígeno-ozono a una concentración de 30 µg/mL, seguidas de 15 a 20 inyecciones paravertebrales metaméricas de ozonoterapia a 20 µg/mL.

En la compresión radicular de los 492 se observó que las alteraciones motoras y sensitivas fueron abolidas en 335 pacientes 68%, mejorados en 98 pacientes, 20% y sin ningún resultado en 59 pacientes 12%, algunos pacientes de este grupo fueron intervenidos quirúrgicamente, lo que equivale a un 88% de buenos resultados con la Ozonoterapia.

Con el tratamiento de Ozonoterapia, se consiguen excelentes y buenos resultados en un 88%, de los casos. La efectividad del uso de este nuevo método mínimamente invasivo, no tiene complicaciones, hay un retorno rápido a la actividad laboral, es de bajo costo, evitando la intervención quirúrgica en la mayoría de los casos y sus secuelas como la fibrosis, columna inestable y el temido síndrome de columna fallida.

Key: PL21 SPA

Tipo de Presentación: Presentación oral. Revisión – Actualización.

Palabras clave: Compresión radicular, ozonoterapia discolisis, ozono.

Plenary lecture

Sepsis and Ozone Therapy in ICU / Clinical Study and two Case Reports.

Ruhi Cakir

Mediozon Clinics Istanbul Turkey

Human sepsis is thought to be systemic inflammatory response syndrome that is activated by invasive infection. In classical therapy, antimicrobial therapy and support therapy are applied in addition extensive research and numerous clinical trials have pursued treatments that would modify the inflammatory response. Ozone is a gas that has high oxidative potential. It can show bactericidal effect by oxidizing lipoproteins and phospholipids in cell membranes of germs. In addition ozone extends antinflammatory and immune regulator activity. In these study effects of ozone was studied in experimental sepsis induced by *E.Coli* endotoxins. Ozone was used in at different doses and compared to classical therapy. Cytokine levels, IL-1, IL-10 and TNF alpha levels are measured and compared between groups. Ozone can be combined with classical therapy in sepsis which is one of the main mortality reasons in ICU that shows proinflammation response and lowers systemic inflammation response. In addition, we showed our experience in the treatment with ozone of two patients suffering from Fournier Gangrene and Crush Injury mostly fatal disease in ICU.

Key: PL22 ENG

Tipo de Presentación: Oral Presentation. Review lecture.

Key words: Sepsis, inflammation, endogenous mediators, Ozone Therapy, Fournier Gangrene

Plenary lecture

Ozone Applications in Spine Diseases.

José Germán Medina

Senior Professor of the Universidad Central de Venezuela.Faculty of Medicine.Head of Spinal Surgery Unit Loire Medical Center, El Paraiso.Caracas Venezuela.Secretary of the Venezuelan Society of Ozone Therapy.Spine Surgeon.Orthopedic Traumatology.

Percutaneous discolysis with ozone is one of the most popular alternative treatments to surgery. The therapy involves an injection of a mixture of oxygen and ozone (4-6 mL) directly into the damaged intervertebral disc. This technique should also be accompanied with paravertebral infiltrations. The number of injections may range from 6 to 12, given in a period of one to two months. Inclusion criteria for treatment with ozone are: a) Failure of conservative treatment: e.g. low back pain with sciatica that does not improve with conservative treatment from 5 to 8 weeks. b) Neurological criteria: positive signs of nerve root compression, with or without sensory disturbance. c) C-neuroradiological criteria: MRI evidence, Spine with herniated disc, which matches the patient's clinical status. The recommended standard protocol consists on ozone gas infiltration directly into the herniated intervertebral disc through the needle guided by image intensification. Procedure will be done in the operating room with the patient sedated and monitored by an anesthesiologist. The procedure usually takes from 30 min to 40 min and in general involved hospitalization for a period of 4 h to 12 h, according to the patient's evolution. The return back of the patient to their normal live routing is expected at 48 h after the procedure. The treatment consist basically in the percutaneous injection of small quantities of ozone (4 mL to 6 mL) intradiscal at a concentration of 30 µg/mL to 40 µg/mL in a volume of 15 mL to 20 mL paravertebral at the foramen of the root level, complemented with a small dose of methylprednisolone 40 mg and bupivacaine 0.125 % (1 mL of each drug). The use of steroid and local anesthetic is it's used to relieve the sciatic pain and increase the percentage of good results. According to our results, expected clinical success will be: Excellent (44 %), Good (38 %), Bad (10 %), Surgery (8 %). In cases of failed surgery, degenerative scoliosis with lumbar pain, fibromyalgia associated with Idiopathic low back pain, severe cervicobraquialgic no neurological deficit, treatment will be focuses on management of paravertebral ozone by weekly sessions until 6 to 8, separated at least a week for 3 weeks and then every 15 days. Finally one every month for 3 months if it's necessary. In general the improvement is assayed by the test of Oswestry who decide the future of the patient. Ozone therapy for spinal pathologies is not the panacea but in our experience is a powerful tool to treat many spine diseases with a minimum of side effects.

Key: PL23 ENG

Tipo de Presentación: Oral Presentation. Review lecture.

Key words:Ozonotherapy, spine, discolysis, hernial disc.

Plenary lecture

Ozone Therapy in Degenerative Disc Disease.

Nurettin Lüleci,¹ Ugur Özdemir,² Arzu İrban,³

¹Pof., Pain clinic, EMSEY Hospital, Istanbul-Turkey, ² Anesthesiology Specialist, Izmir State Hospital-Turkey, ³ Assoc. Prof., Department of Anesthesiology, Acıbadem University.

Low back pain is at the second place following respiratory diseases most common cause for application to hospitals. 80-85% of the populations at least once in their life describe any stage of severe back pain. Causes of low back pain are idiopathic, degenerative disc disease, developmental, congenital, traumatic, infectious, inflammatory, neoplastic, metabolic etc. Causes of pain mechanical compression and biochemical mediators.

Intradiscal ozoneinjection therapy is a minimally invasive treatment. Intradiscal ozone injection results with chemodiscolysis as a result of ozonolysis of proteoglycans with dehydration. Analgesic - anti-inflammatory effect occurs as a result of blocking the synthesis and release of Prostaglandins, bradykinin, and some other algogenic molecules. Intradiscal laser application leads to volume-reducing effects. Purpose of the study is to investigate the effects of combined application of ozone and laser.

Patients with low back pain in spite of conservative treatment and having black disc at MRI were included in the study prospectively. Patients were randomly divided into 3 groups: Group O (ozone): 15 µ/mL concentration, 5 -10 mL volume. Group L (laser): 750 pulse, 12 pause, 2 mL 9 joule – 500 joule was applied via Laser – Intermedic Multidiode PL 3D. Group L+O (laser+ozone): After laser application, ozone was injected. In all 3 group 40 mg triamsilon+ 5 mg 0.5% plain bupivacain were injected epidurally.

Sixty-eight patients (F/M: 23/45; mean age 37.2 years old ranged between 21 to 53 were included in the study. Oswestry disability index evaluation revealed that application of combined techniques has higher analgesic effects. Application of combined techniques used the proposed schedule lead more effective the analgesic effect.

Key: PL24 ENG

Tipo de Presentación: Oral Presentation. Clinical Trial.

Key words: Intradiscal, ozone; intradiscal, laser; analgesia, degenerative disc disease.

Plenary lecture

Ozonotherapy Challenges Facing the Legislation.

Roberto Quintero Mariño.

Legal Advisor of the: Spanish Association of Medical Professionals in Ozone Therapy (AEPROMO, www.aepromo.org), International Medical Ozone Federation (IMEOF, www.imeof.org) and the International Scientific Committee of Ozone Therapy (ISCO3) www.isco3.org

The presentation is based on the research conducted in legal matters by Roberto Quintero Mariño (lawyer) legal advisor of AEPROMO, IMEOF and ISCO3; and Adriana Schwartz (physician), President of AEPROMO & IMEOF and Secretary of ISCO3. It has been published online in the Spanish Journal of Ozone Therapy, May 2012 (www.aepromo.org).

The ozone therapy is on the medical agenda and the figures attest to its growing importance. The ozone therapy is increasingly practiced in different parts of the world. The existence of more than 47 associations of ozone therapy and more than 26 000 ozonotherapists is a good evidence. The ozone therapy is having more presence in the media, is being used by the professional sport, its misuse has been the subject of legal proceedings, and health authorities have had to discuss about the therapy. However, its history indicates that it has quite difficult for the therapy to have a significant presence in the world's medical agendas.

Only in Russia, Cuba, Spain and Italy can be found provisions issued by the authorities spelling out the requirements to be practiced. These provisions are discussed in this presentation, with the aim to work in favor of its regularization, taking as reference the measures already taken by these countries. Specific points and a methodology are proposed in the presentation that should be taken into account with the objective that regularization of ozone therapy may be regularized in countries where it is widely practiced.

Health professionals must be aware that the regularization is a complex process, obstacles are numerous, difficulties are coming from different fronts, and that the ozone therapy is still not accepted by some medical sectors.

Key: PL25 ENG

Type of Presentation: Oral Presentation

Key words: ozone regulation, ozone therapy, legal requisites

Conferencia Plenaria

Los desafíos de la ozonoterapia frente a la legislación.

Roberto Quintero Mariño.

Asesor Legal de la Asociación Española de Profesionales Médicos en Ozonoterapia (AEPROMO, www.aepromo.org), el International Medical Ozone Federation (IMEOF, www.imeof.org) y el International Scientific Committee of Ozone Therapy (ISCO3) www.isco3.org

La presentación está basada en la investigación que en materia legal realizaron Roberto Quintero Mariño (abogado) Asesor legal de AEPROMO, IMEOF e ISCO3; y Adriana Schwartz (médica) Presidente de AEPROMO e IMEOF, y Secretaria de ISCO3. Se encuentra publicada *online* en la Revista Española de Ozonoterapia, mayo 2012 (www.aepromo.org).

La ozonoterapia está al orden del día y las cifras atestiguan su importancia creciente. La ozonoterapia se practica cada vez más en diferentes partes del mundo. La existencia de más de 47 asociaciones de ozonoterapia y de más de 26 000 ozonoterapeutas así lo atestigua. La ozonoterapia es con más frecuencia noticia en los medios de comunicación, es utilizada por deportistas profesionales, su mal uso ha sido objeto de debates judiciales, y autoridades sanitarias han debido pronunciarse sobre la terapia. No obstante su historia ha indicado que le ha costado tener una presencia de importancia en las agendas médicas del mundo.

Solamente en Rusia, Cuba, España e Italia se pueden encontrar disposiciones por partes de las autoridades que precisan los criterios que se deben cumplir para que se pueda practicar. Esas disposiciones son analizadas en esta presentación, para pronunciarse a favor de trabajar por la regularización de la ozonoterapia, tomando como referencia las medidas adoptadas por dichos países. Se proponen puntos precisos, y una metodología que se deben tener en cuenta para la elaboración de una estrategia que pueda culminar en la regularización de la ozonoterapia en los países donde está siendo ampliamente practicada. Se debe ser consciente que la regularización es un proceso complejo, los obstáculos son numerosos, las dificultades provienen de diferentes frentes, y que algún sector médico no acepta la ozonoterapia.

Key: PL25 SPA

Tipo de Presentación: Presentación oral.

Palabras clave: ozono terapia, requisitos legales, ozono regulaciones

Plenary lecture

Perspectives of Ozone Containing External Preparations Using in Dermatology.

Oxana Bikina, Sokolov S.A., Karkunin A. A., Mishurova A.F.

Nizhny Novgorod State Medical Academy, Medozons, Nizhny Novgorod Research Dermatovenereological Institute.

Production of ozone containing preparations effects now in different countries of the world. Such local drugs as otrozonids and otrisuperzonids (Medozons, Russia); Ozyoil line (Mexico), Ozonobella and Ozonovita (Bozon, Ukraine); Aliving ozone line (Medozon, Russia); Oxigeno line (Laboratory Tegor, Spain); Oxactive cream and anti-aging gel (Pharmoxid, Germany) were presented on ozone therapy specialists meetings last decade. Characteristics of local drugs depend on quantity of peroxides and acid number. Most of ozone containing producers determines their productions as antibacterial, antiviral and fungicidal drugs (first group with high level of peroxides) and anti-aging preparations (second group with low peroxides data). Basic multiple clinical investigations has affirmed the antimicrobial activities of ozonids containing preparations with specific bacteriological tests and electronic microscopy. Single investigations with ultrasound skin scanning during therapy of atopic dermatitis with ozone olive oil were given in Russia, 2008.

We used for local therapy of dermatological patients two types of ozonized olive oil (Medozons production): Otriozonid with peroxide number from 2.5 % to 3.5 % and acid number from 8 to 18 mg KOH/g and Superozonid with peroxide number from 3.5 % to 5.5 % and acid number from 20 to 35 mg KOH/g. Otriozonid was prescribed for atopic dermatitis and different kinds of eczema. Otrisuperzonid was used in local therapy of secondary pyoderma as complication of atopic dermatitis, fungi skin and nail involvement. Dermatological patients (41) suffered from such diseases as atopic dermatitis (27), local neurodermatitis (3), candida eczema (3), infectious eczema (5), palm-planter psoriasis (3) were treat with Otriozonid. Local therapy lasts 3-4 weeks. Significant improvement in clinical status was noted in all clinical cases as pruritus, inflammation, skin dryness decrement. Intensity of skin humidity was estimated with corneometer (monaderm skin diagnostic SD27, Monaco), significant enlargement of this parameter was fixed after course of local therapy. Otrisuperzonids was used in 19 clinical cases suffered from atopic dermatitis (3), paratraumatic infectious eczema after burn (2), infectious eczema (4), candida eczema (2), fungi nail involvement (3), nodule prurigo (2), varicose eczema with trophic ulcers (3). Clinical effectiveness was expressed in infiltration decrement, pustules, excoriations, fissures regress. Clinical success of local ozone therapy must be confirm with instrumental diagnostic such as skin scanning, corneometer, tewameter, pH-meter and others for best neutrality.

Key: PL26 ENG

Type of Presentation: Oral Presentation

Key words: ozone olive oil, atopic dermatitis, corneometer.

Plenary lecture

Results of Conservative Treatment of Tarsal Tunnel Syndrome: Medical Ozone Infiltration and Surgery.

Juan López-Laserna Ruiz

Chief of the Foot and Ankle Unit. San Juan de Dios Hospital. Cordoba.

The tarsal tunnel syndrome (TTS) is an extrinsic or intrinsic neuropathy of the foot, secondary to compression of the tibial nerve (TN) or one of its terminal branches (medial plantar n., Lateral plantar n. Medial calcaneus n.) in the tarsal canal or channel Richet. The release thereof was first described by Keck and Lam in 1962. The TTS is similar to carpal tunnel syndrome, although much less frequent. In the current nomenclature we speak of posterior and anterior tibial nerve, naming them as deep peroneal and tibial nerve. We believe that the frequency of this disease which is greater than has hitherto been considered. We will try to clarify the pathogenesis, diagnosis and treatment of this condition, adding to the studies reviewed our experience.

Since 1999 we have treated in our clinic 588 TTS, we systematically performed a thorough examination, studies Rx laden feet, and in cases not cured with injections of medical ozone (MO), EMG, ENG, NMR, etc. All patients have been treated by the same medical team and those who have been cured of their symptoms with the infiltration of TTS (not associated pathologies) have been treated surgically. As we have made treatment regimen TTS infiltration fortnightly up to 3, with 2% mepivacaine without epinephrine, we have waited three minutes to inject 10 mL. Medical ozone at a concentration of 30 µg / mL.

Cured by MO 490 infiltration TTS, 10% with the first, 30% with the second and 40% in the third. The remaining 20% were treated surgically. We have intervened 98 TTS in 84 patients by 2% of our interventions in pathologies of the foot, in this period we have operated in our Unit 6 240 feet. The results have been excellent, 80% good in 18% and we just had two bad results. The TTS is a common foot, the results with OM infiltration lead to cure in 80% of cases. In the remaining patients either performed surgical treatment gives excellent results. Do not forget to treat pathologies that produce TTS.

Key: PL27 ENG

Type of Presentation: Oral Presentation. Clinical Trial.

Key words: tarsal tunnel syndrome, medical ozone infiltration, tibial nerve

Conferencia Plenaria

Resultados del Tratamiento Conservadodel Síndrome del Canal Tarsiano: Infiltraciones con Ozono Medico y Cirugía.

Juan López-Laserna Ruiz

Jefe de la Unidad del Pie y Tobillo. Hospital San Juan de Dios de Córdoba.

El síndrome del canal tarsiano (SCT) es una neuropatía extrínseca o intrínseca del pie, secundaria a la compresión del nervio tibial (NT) o de alguna de sus ramas terminales (n. plantar medial, n. plantar lateral y n. calcáneo medial), en el canal del tarso o canal de Richet. La liberación del mismo fue descrita por primera vez por Keck y Lam en 1962. El SCT es análogo al síndrome del canal carpiano aunque mucho menos frecuente. En la nomenclatura actual dejamos de hablar de nervio tibial posterior y anterior, los nombramos como nervio tibial y peroneo profundo. Creemos que la frecuencia de esta patología es mayor ha la que se ha considerado hasta ahora. Intentaremos aclarar la etiopatogenia, el diagnostico y el tratamiento de esta patología, añadiendo a los trabajos revisados nuestra experiencia.

Desde 1999 hemos tratado en nuestra consulta 588 SCT, sistemáticamente hemos realizado una exploración minuciosa, estudios Rx de pies en carga, y en los casos que no curaban con infiltraciones con Ozono Medico (OM), EMG-ENG, RMN, etc. Todos los pacientes han sido tratados por el mismo equipo medico y los que no han curado de su sintomatología de SCT con las infiltraciones (no de las patologías asociadas) han sido tratados quirúrgicamente. Como pauta de tratamiento hemos realizado infiltración del SCT cada quince días hasta un máximo de 3, con mepivacaina al 2% sin adrenalina, hemos esperado tres minutos para infiltrar 10 mL de Ozono Medico a una concentración de 30 µg / mL.

Curaron con infiltraciones con OM 490 SCT, un 10% con la primera, un 30% con la segunda y un 40% con la tercera. El 20% restante fueron tratados quirúrgicamente. Hemos intervenido 98 SCT en 84 pacientes un 2% de nuestras intervenciones de patologías del pie, en este periodo hemos intervenido en nuestra Unidad 6 240 pies. Los resultados han sido excelentes en un 80%, buenos en el 18% y solo hemos tenido dos malos resultados. El SCT es frecuente en el pie, los resultados con infiltraciones con OM llevan a la curación en el 80% de los casos. En el resto de los pacientes el tratamiento quirúrgico bien realizado ofrece excelentes resultados. No hay que olvidar tratar las patologías asociadas que producen el SCT.

Key: PL27 SPA

Tipo de Presentación: Presentación oral. Estudio clínico.

Palabras clave: Síndrome del canal tarsiano, infiltración, ozono medico, nervio tibial.

Plenary lecture

Ozone Therapy in Urology.

[Eduardo Martín García Villanueva](#)

Medica Angelus. México D.F., C.P. 07300

The application of ozone in the most frequent pathologies of urology has had a high level of efficacy, such as in prostatic hyperplasia, prostate cancer, Balanitis, stricture of urethra, erectile dysfunction, ejaculation Peyronie disease, interstitial cystitis, human papillomavirus virus and mixed cervical-vaginitis. In this study we analyze the implementation of the ozone therapy depending on the site of affectation and using a combination of different techniques: Autohemotherapy Mayor, local, subcutaneous, directly in the injury and by instillation. In general it was observed a fast evolution of the symptoms and in many of the cases the total healing.

The objective was to provide a better quality of life for the patient from different point of view: curative, preventive or palliative in the treatment of the 10 most common pathologies in urology. More than 80 % of patients showed improvement in their symptoms, as it is the case of prostatic hyperplasia in where a reduction in the size of the prostate were 10 % to 30%. In addition, elimination of residual urine was observed after treatment. In the case of advanced prostate cancer was applying autohemotherapy in combination with ultraviolet light getting the Prostatic Antigen (PAS) reduction and improving the general health status of the patient.

In the topical application of ozone in Glans affected from balanitis a success has been observed because 90% of the patients improved their symptoms. The same results were observed in topical and intravaginal application in cases of cervico-vaginitis. In Peyronie's disease within fibrosis application after several applications of ozone there was observed a reduction of more than 90 % of the injury. The application of ozone in *corpus cavernosum* also increases vascular flow improving the rigidity of the erection. The subcutaneous application of ozone in Raphe decreased the hypersensitivity of the Glans getting better ejaculatory control. Ozone applied directly into the male urethra with stenosis, improves urinary flow and urethral caliber as this technique is also used to eliminate the infection by Human Papilloma Virus. In cases of interstitial cystitis intravesical ozonized water was applied repeatedly and the improvement occurs in a short time with long periods of remitting without irritation and infection. All applications of ozone therapy in patients suffering from urological pathology results in an important improvement and in many cases healing. This work shows the great usefulness of ozone therapy as a great tool in the medical practice with surprising results that offer the patient a better quality of life.

Key: PL28 ENG

Type of Presentation: Oral Presentation. Clinical Review.

Key words: Urology, ozone, prostatic hyperplasia, prostate cancer, Balanitis, urethra, erectile dysfunction, ejaculation, Peyronie disease, interstitial cystitis, human papillomavirus virus, mixed cervical-vaginitis

Conferencia Plenaria

Ozonoterapia en Urología.

Eduardo Martín García Villanueva

Médica Angelus S.A. de C.V., México D.F., C.P. 07300

La aplicación de ozono en las patologías más frecuentes de urología ha tenido un resultado asombroso tal es el caso de: la hiperplasia prostática, el cáncer de próstata, Balanitis, estenosis de uretra, disfunción eréctil, eyaculación precoz, enfermedad de Peyronie, cistitis intersticial, virus de papiloma humano y cérvico-vaginitis mixta. En este estudio se realizó la aplicación del ozono siguiendo diversas vías de administración en dependencia de la localización de la lesión, por ejemplo: Autohemoterapia Mayor, aplicación local, subcutánea, directamente en la lesión y por instilación. Una vez que se observó la evolución de los síntomas y en muchos de los casos la curación, se formularon esquemas de tratamiento simples y combinados. El objetivo fue brindar al paciente una mejor calidad de vida, enfocando el tratamiento hacia la curación, prevención como complemento de otras terapias en las 10 patologías más comunes en urología.

Más del 80% de los pacientes presentaron mejoría importante en su sintomatología, como fue el caso de la hiperplasia prostática en donde se observó, después del tratamiento, una reducción del tamaño de la próstata de 10 % a 30% como también eliminación de orina residual. En el caso de cáncer de próstata avanzado se aplicó Autohemoterapia en combinación con luz ultravioleta obteniendo reducción del antígeno prostático (PSA) y con mejoría del estado general de salud del paciente, que refirió con más energía y vigor. En la aplicación tópica de ozono en glande por balanitis la terapia resultó exitosa ya que el 90% de los pacientes mejoró su sintomatología. También la aplicación tópica e intravaginal en los casos de cérvico-vaginitis. En la enfermedad de Peyronie la aplicación del ozono fue dentro de la fibrosis, y después de varias aplicaciones hubo reducción de más del 90% de la lesión. También la aplicación de ozono en cuerpos cavernosos incrementó el flujo vascular mejorando la rigidez de la erección. El ozono subcutáneo en rafe disminuyó la hipersensibilidad del glande obteniendo mejor control eyaculatorio.

El ozono aplicado directamente en la uretra masculina con estenosis, mejoró el flujo urinario y el calibre uretral. Esta técnica fue usada también para eliminar la infección por el Virus del Papiloma Humano. En los casos de Cistitis intersticial se aplicó agua ozonizada intravesical en repetidas ocasiones y la mejoría se presentó en corto tiempo con períodos largos sin irritación e infección. Todos los pacientes con patología urológica tratados con ozonoterapia obtuvieron una mejoría importante y en muchos de los casos curación. Este trabajo muestra la gran utilidad de la ozonoterapia como una gran herramienta en la práctica médica con resultados sorprendentes ya que se brinda al paciente una mejor calidad de vida.

Key: PL28 SPA

Tipo de Presentación: Presentación oral. Revisión Clínica, Actualización.

Palabras clave: Urología, hiperplasia prostática, cáncer de próstata, Balanitis, estenosis de uretra, disfunción eréctil, eyaculación precoz, enfermedad de Peyronie, cistitis intersticial, virus de papiloma humano, cérvico-vaginitis mixta.

Plenary lecture

Combined Therapy Ultraviolet Irradiation of Autologus Blood Plus Ozone.

Froylán Alvarado Güémez

Associated Professor of Ozonotherapy, Faculty of Medicine, Sinaloa Autonomous University. México. President of the Mexican Association of Ozone Therapy. México. ISCO3 member / IMEOF/ AEPROMO. Address: Descartes 466, Int A, Colonia Villa Universidad, Culiacán, Sinaloa, México. Tel./Fax 52 6677531584 E.mail: info@amazon.org.mx

UV irradiation (UBI) therapy of autologus blood was successful used for first time by Dr. E. Knoth in 1928 on a moribund woman following a septic abortion for streptococcus septicemia that after 2 d returned to normal health. After 5 years in 1932 treated a second patient with advanced hemolytic streptococcus septicemia who was completely cured again, and started to promote the use of a UBI device to deal with viral and other infection diseases, inflammatory and autoimmune disorders, and ultimately with a wide range of disorders without side effect of consideration. At that time of pre antibiotic era UBI became a powerful and reliable tool to control postoperative infections when nothing else did. With the advent of antibiotics, the emergence of corticosteroids and vaccines combined with the development of biochemistry and pharmacology in the 1950's, UBI was simply abandoned by all but a few practitioners. By the 1970's, UBI came to be widespread used by East German and Russian doctors to treat microcirculatory disorders, complicated infections and skin diseases and were made many careful laboratory and clinical studies. In the 1990's, Russians physicians began to use low intensity lasers at 632.8 nm to irradiate the blood (Laser Blood Irradiation: LBI) and they found that had very similar effects to UBI. Actually both UBI and LBI became standard features in Russian clinics and doctors' offices.¹

UBI therapy utilizes UV radiation of different wavelengths to irradiate a small portion (3 mL/kg of weight) of the autologus blood following its transfusion. The coherence length of the incoming wave-signals determines the changes of the cellular and molecular biology field which in turn stimulate or suppress biological activity.² The mechanisms of action are complex and related to several laws of photochemistry. From a systemic perspective UBI fits in the branch of the Biophysical Pharmacology of Differential Energy Drugs (DEDs), like nucleoside analogues, ascorbic acid, glucose and ATP as well as ozone therapy does.³ We postulate that this combination therapy UBI plus Ozone Autohemotherapy is more potent and fast in its therapeutic effects than MAHT or Ozone Rectal Insufflations and it is probably mediated by faster increase on cellular antioxidant activity, quick physiological regulation response of autonomic nervous system, more powerful and rapidly regulation of the immune and metabolic system as well as the regulation of oxygen metabolism, more potent regulation of autacoids synthesis and best germicidal effects. The main indications and contraindications are the same as the MAHT, but would add the UBI themselves as porphyria, photosensitivity / photodermatitis. Among its side effects Marachkov demonstrated that appear only in 1.3% of the cases include hypoglycemia, dizziness and herxheimer reaction.⁴ In this oral presentation are shown some cases treated with this combination therapy to demonstrate the powerful synergistic therapeutic effects of both therapies. We conclude that the entrance to the body of energy from the UBI+Ozone greatly changed the balance of forces, benefiting the whole body. Increasing host resistance is increased homeostaticability to control various pathological processes in an unusually rapid and effective way.

References: 1. - Campbell Douglas W. 1997. Into the Light. Second Opinion Publishing Inc. p.19-27 / 2. - Bulat V, Situm M., *Coll Antropol* 2011 Sep; 35 Suppl 2:147-51 / 3.- Dillon Kenneth., Healing Photons. Scientia Press. 1998. P.18 /4.-Marochkov AV, Doronin VA., *Anesteziol Reanimatol*. 1990 Jul-Aug;(4):55-6.

Key: PL29 ENG

Type of Presentation: Oral Presentation. Review Lecture – Up-date.

Key words: Ultraviolet Blood Irradiation, Mayor Autohemotherapy, Photo-Oxidation, Photopheresis, Hemoirradiation, Photodynamic therapy

Plenary lecture

Ozonotherapy in Multiple Sclerosis. Case Report.

Esteban González Sánchez, Agne Díaz Riverol, Yovanny Salar Peñate, Mayda Debén Vila.

Clinicanaria Internacional. Avenida Gran Canaria, 19, Club 14, Bungalow 6. Playa del Inglés. CP 35100. Las Palmas.

Multiple sclerosis is a disease that is usually progressive and causes inflammatory and demyelinating lesions in the central nervous system, with outbreaks of worsening disease, causing disability and dependency of patients and a limited respond to current treatments. It has an estimated prevalence of about 85 over 100 000 people. A patient of 28 years with a definitive diagnosis of multiple sclerosis since 2007 is presented. He has experienced suggesting symptoms of the disease since he was 14 years old. He has proved several treatments with little or none improvement and sometimes, they have provoke many side effects on him. He showed relevant signs and symptoms of the disease (ataxia, nystagmus, clonus, spasticity). Evaluation of EDSS with 6-6.5 points. Given the health benefits of ozone therapy as a mediator of oxidative stress and immune system, stimulator of cell metabolism and blood stream, we are encouraged to initiate a protocol of this therapy in the patient through major autohemotherapy at low concentrations (10 µg), with progressive increments up to 20 µg, with an initial frequency of 2 times per week the first month, then a weekly session during 2 months, followed by another monthly session. The clinical and imaging evaluation was done 6 months after the treatment, showing evident improvement of all symptoms and signs present in this patient as well as a greater independence. Recently he started a treatment with Natalizumab (3 doses) without showing any side effects, and he follows with the treatment with ozone (1 dose per month). Current EDSS evaluation has a value of 4 points. Due to these results it is recommended to consider the use of ozone therapy as first-line treatment in this disease.

Key: PL30 ENG

Type of Presentation: Oral Presentation. Case Report.

Key words: Ozonotherapy, multiple sclerosis, demyelinating lesions, Natalizumab.

Conferencia Plenaria

Ozonoterapia en Esclerosis Múltiple. Presentación de un Caso.

Esteban González Sánchez, Agne Díaz Riverol, Yovanny Salar Peñate, Mayda Debén Vila.

Clinicanaria Internacional. Avenida Gran Canaria, 19, Club 14, Bungalow 6. Playa del Inglés. CP 35100. Las Palmas.

La esclerosis múltiple es una enfermedad que suele ser progresiva y que provoca lesiones desmielinizantes e inflamatorias en el sistema nervioso central, con brotes de agudización, generando discapacidad y dependencia de los pacientes y con respuesta limitada a los tratamientos actuales. Tiene una prevalencia estimada de alrededor de 85 por 100 000 personas. Se presenta un paciente de 28 años de edad con diagnóstico definitivo de esclerosis múltiple desde el 2007, con síntomas sugestivos de la enfermedad desde los 14 años. Había llevado varios tratamientos con poca o ninguna mejoría y en ocasiones con muchos efectos secundarios. Presentaba signos y síntomas importantes de la enfermedad (ataxia, nistagmus, clonus, espasticidad). La evaluación de EDSS con 6-6,5 puntos. Dados los beneficios médicos de la ozonoterapia como mediador del estrés oxidativo y del sistema inmunológico, estimulador del metabolismo celular y del flujo sanguíneo, nos motivamos a iniciar un protocolo de tratamiento de esta terapia en el paciente, se empleó la autohemoterapia mayor a bajas concentraciones (10 µg), con incrementos progresivos hasta 20 µg, con una frecuencia inicial de 2 veces por semana el primer mes, y luego una sesión semanal por 2 meses más, seguida de una mensual. La evaluación clínica y por imagen se realizó después de 6 meses, existió una mejoría evidente de todos los síntomas y signos presentes en este paciente así como una mayor independencia. Recientemente inició tratamiento con Natalizumab (3 dosis) sin presentar ningún efecto secundario, y se le mantiene el ozono (1 dosis mensual). La evaluación de EDSS actual tiene un valor de 4 puntos. Por estos resultados se recomienda considerar el uso de la ozonoterapia como tratamiento de primera línea en esta enfermedad.

Key: PL30 SPA

Tipo de Presentación: Presentación oral. Reporte de Caso.

Palabras clave: Ozonoterapia, esclerosis múltiple, lesiones desmielinizantes, Natalizumab.

Plenary lecture

Ozone Therapy in Recurrent Vulvovaginal *Candida albicans* Infections.

Adriana Schwartz Tapia.

M.D. Gynecologist, President of AEPROMO, President of International Medical Federation of Ozone Therapy (IMEOF), ISCO3 secretary. Director Fiorela Clinic (1). Av. Juan Andrés 60, Local 1 Bajo izda. 28035 Madrid- Spain. adriana@aepromo.org; www.clinicafiorela.com; www.aepromo.org

Assess the effectiveness of the ozone and diet therapy treatment of recurrent vulvo vaginal by *Candida albicans* infections. Vaginitis caused by *Candida albicans* is the most common gynaecological disease found in the primary health care and makes a health issue of great importance because of its high frequency. Patients (150) were selected with ages ranging from 30 to 50 years, with vulvo-vaginitis for at least 6 months of evolution, refractory to usual drug treatment and positive cultures for candidiasis. Hydrocolontherapy machine. Bozon N ozone generator. Disposable vaginal insufflator VIN-100. Set for vaginal injection pure ozonides Bozon-RVPO 6. It was performed one hydrocolon therapy with ozonized water. It was given: diet low in carbohydrates of high glucemic index, homeopathic protocol, daily intravaginal showers with ozonized water (10 sessions), daily intravaginal ozone insufflations at concentration of 20, 15, 10, 5 µg/mL at speed of 0.2 L/min. during 10 min. (10 sessions), application of ozonized oil with peroxide number of 800-600 and 400, during 10 days, 4 autohemotherapy with UV at 20 µg/mL once a week. At the end of treatment were repopulated the vaginal flora with *Lactobacillus* vaginal tablets for 7 days and repopulated the intestinal flora with *Lactobacillus* using oral route, during 1 month. 85% of patients favourably responded to treatment, 10% remained asymptomatic for a period of less than one year and 5% of patients did not respond to treatment. Intravaginal ozone therapy offers a synergistic action to drug treatment, homeopathic, diet and / or an effective alternative to conventional treatment with usual fungicides, not only achieving a remission of symptoms and negative cultures of vaginal exudates in patients with vulvovaginitis, but also an increase of Ig A and *Lactobacillus* in the vaginal epithelium.

Key: PL31 ENG

Type of Presentation: Oral Presentation

Key words: vaginitis, vulvo-vaginitis, *Candida albicans*, hydrocolontherapy, diet therapy, homeopathy

Plenary lecture

Treatment of Symptomatic Spinal Degenerative Pathologies by Means of Combined Conservative Biochemical Treatments.

[Alexandre Alberto](#), Corò Luca, Alexandre Andrea M, Fernández Juana, Brunori Marco.

EU.N.I. European Neurosurgical Institute, Treviso and Rome European Hospital, ITALY.

We report the results of Oxygen / Ozone treatment of spinal degenerative pathologies, as we could experiment in public health System through three years. Groups of patients: A - Patients with degenerative disc arthropathy: 509 (26.5 % of the series). B - Patients with FBSS: 1027 (53.48 %). C - Patients with herniated lumbar disc: 384 (20%). Treatment group A and B: paravertebral periganglionar injection of O₂/O₃ gas mixture at 15 µg/mL of Ozone (two cycles of 6 sessions) (all in outpatients), plus endoscopic neurolysis with intradiscal procedure of oxygen-ozone injection at 30µg/mL. Treatment in group C did not include epiduroscopy, but only intradiscal procedure, after paravertebrals. Results were evaluated by Roland Morris and International Pain Visual Analog Scale (VAS).

The results of the evaluation were: Patient Group A with degenerative disc arthropathy (Excellent in 261 cases out of 509 (51.27 %), Good in 112 (22 %), Moderate in 123 (24.16 %), Poor in 4 (0.78 %), It was impossible to treat 9 (1.76 %)). Patient Group B: Failed Back Surgery Syndrome (Excellent in 418 cases out of 1027 (40.7 %), Good in 383 (37.29 %), Moderate in 214 (20.83 %), Poor in 10 (0.97 %), It was impossible to treat 2 (0.19 %)). Patient Group C: herniated lumbar disc, no other concomitant factors (78 Patients (20.3 %) benefited from the outpatient treatment, and did not receive intradiscal injection. 6 patients were excluded because of general problems. The remaining 300 patients were treated with an intradiscal injection of O₂/O₃ after the outpatient treatment: discolysis.

Concluding remarks: 1) mini-invasive technique is outpatient treatment plus 1 day – hospital, 2) mini-invasive techniques can be repeated without harm for the patient, 3) the costs for mini-invasive techniques are extremely limited. The results of this treatment were compared with a similar series of 300 patients treated by our group over the last 3 years by microdiscectomy. There were no statistically significant differences in the outcome for the two techniques at 18 months after treatment. Microdiscectomy is indispensable in situations of particularly high pain levels and when there is acute and severe motor deficit. The morbility and mortality rates of the microdiscectomy procedure are well known, as is the possible consequence of FBSS. Discolysis is a procedure that is practically free from short- and long-term complications and can be applied even when general health is poor. It should be noted that in the event of unsuccessful results with discolysis the situation is not worsened by difficulties for future treatment due to post-surgical scar or weakening of the bone structure, as is the case with open surgery.

Key: PL32 ENG

Type of Presentation: Oral Presentation

Key words: Discolysis, Spinal degenerative pathologies, herniated lumbar disc

Poster

- PO01 [Technologies of ozone therapy in military medicine](#)
- PO02 [Ozone therapy in complex treatment of cattle malignant edema](#)
- PO03 [Estimation of Physical and Chemical Factors Effect on Human Blood Serum Self-Organization](#)
- PO04 [Spondylodiscitis Treated by Ozone Therapy. Experience of 15 cases](#)
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- PO07 [Ozone Therapy and Epidermal Growth Factors: A New Approach in the Treatment of the Diabetic Foot.](#)

Poster

Technologies of ozone therapy in military medicine.

Miroshin S.I., Peretyagin S.P.

Nizhny Novgorod research institute of Traumatology and Orthopaedics, Nizhny Novgorod, Russia.

The aim of this work is estimation of ozone therapy possibilities in military medicine. We used ozone therapy technologies in treatment of 225 wounded men (main group). Control group includes 149 wounded men, treated by traditional surgical methods. In control and main groups prevalent injury type was gunshot wound of soft tissues (42.5%). Part of wounded men had an infection complication of traumas (10.2%). Many patients had multiply (30.4 %) or combined injuries (26.0%). Shock was diagnosed at 15% of wounded men. Was used different techniques of systemic and local ozone therapy: external management by ozonized solutions (used by flowing and aspirational methods); flowing gassing in plastic cameras with ozone-oxygen mixtures; external wound processing by ozone-oxygen mixtures for haemostasis control; intra-wound injections by ozone-oxygen mixtures and ozonized solution of NaCl 0.9%; intra-bone injections of ozonized physiological solution (as modification of percutaneous wound bathing or as infusion method); extracorporeal processing of donor and reinfused blood directly before transfusion; intravenous infusion of ozonized solutions.

At ozone use in anti-shock management in first day after trauma we fixed normalization of arterial pressure, tachycardia reduction (decreasing of «shock index»), increasing of central venous pressure, erythrocytes rate and hemoglobin level, lowering of rectal-skin temperature gradient and restoration of hourly urine output. At main group in wound primary necrosis zone and molecular shaking zone clear increasing of necrotized and relative viable tissues at 44.4 % and 68.5%, respectively. It was reflected in reduction of extracting tissues volume (at 31.0 ± 10.0 g). We observed clear haemostatic effect at external wound processing (including burn and bone wounds) by ozone-oxygen mixtures with ozone concentration more than 5 mg/L. In this case hemorrhage time was reduced at 2 times. At 2-3 days after treatment beginning microbe contamination of dialyzate was decreased from 10^8 to 10^2 per mL. Lethality level in main and a control group was 5.2 % and 16.6 %, respectively. It was stated, that systemic and local ozone therapy is necessary component of wounded men treatment complex. Ozone therapy use allows decreasing treatment period and optimizing its results as compared with traditional management schedule. Prevalence of purulent and infection complications at this treatment variant was reduced too.

Key: PO01 ENG

Type of presentation: Poster.Clinical Trial.

Key words: ozone therapy, military medicine, wound.

Poster

Ozone Therapy in Complex Treatment of Cattle Malignant Edema.

Kolobov E.A., Nikulin D.M.

Veterinary sanitary inspectorate of Nizhny Novgorod Region, Nizhny Novgorod, Russia.

Malignant edema of cattle is acute non-contagious pathology, which characterized heavy intoxication, rapidly generalized inflammatory edema and gas formation in affected tissues. This pathology is wide-spread and causes to animals high lethality. The causative agents of this disease are *Clostridium perfringens* (type A), *Cl. oedematiens*, *Vibrio septique* and *Cl. histolyticus*. Currently main method of malignant edema treatment is surgical manipulation for disease location section with its oxygenation. Local management of this pathology includes wound processing by hydrogen peroxide, potassium permanganate, norsulfazol, streptocide, furaciline-based and penicillin-based medicines.

We study 28 cows with malignant edema, which was divided at 4 groups. Cows of first group ($n=5$) were treated by traditional scheme (10000 ED/kg of tetracycline hydrochloride twice a day intravenously; 3000 ED/kg of sodium benzylpenicillin 4 times a day; ascorbic acid, glucose etc.). Animals of second, third and fourth groups have got a intravenous injections of ozonized 15% solution of sodium chloride (ozone concentration in solutions was 1; 1.5 and 2 mg/L; injections total volume was 0.5-1 L per day). In addition, we injected ozonized sodium chloride solution in tumoral region (1 L). Ozonized solutions were prepared special ozonator («Medozons»). For treatment anti-inflammatory effect control bacteriological investigations were executed by specialists of Nizhny Novgorod Region Veterinary Laboratory.

Main causative agents of the malignant edema in studied cows were *Clostridium perfringens* (type A) and *Cl. oedematiens*. Maximal prevalence of disease was registered in February, March, April and first 10 days after calving. Management effectiveness in first group (traditional scheme) was 40% (medium treatment period – 11 days; 3 cows were died), in main groups – 85.7; 87.5 and 90%, respectively (medium treatment period – 5, 4 and 3 days). Economical effectiveness of ozonized solutions use in malignant edema treatment is 248.9 RUR per cow (at 01.07.2002). It was stated, that use of ozonized sodium chloride solutions in cow malignant edema management is more effective in comparison with control group (at 45-50%). Maximal clinical effect was registered at 2 mg/L ozone concentration. On this results base, we recommended this technology in veterinary practice for investigated pathology treatment.

Key: PO02 ENG

Type of presentation: Poster.Clinical Trial.

Key words: ozone therapy, cow malignant edema, veterinary

Poster

Estimation of Physical and Chemical Factors Effect on Human Blood Serum Self-Organization.

Martusevich A.K., [Peretyagin S.P.](#), Ivannikova E.V.*, Zhukova N.E.**

Nizhny Novgorod Research Institute of Traumatology and Orthopaedics. *Nizhny Novgorod Regional Clinical Hospital. **Clinics «Hospitaler», Saratov

There is number of scientific papers about action of different physical and chemical factors (temperature, pressure, magnetic fields, chemical agents etc.) on biological fluids structurization on its dehydration on horizontal plane now. The *aim of this work* is investigation of some physical and chemical factors action on crystallogenic properties of blood serum. We investigated action of the ozonation (ozone dose 1000 µg/L for barbotage), oxygenation and combination of oxygenation and Darsovalization on these biological substrates (34 specimens from healthy peoples and burned patients). Crystallogenic properties of modified blood serum were estimated by classic crystalloscopy, and biological fluid initiated activity was tested by comparative teziography (Martusevich A.K. *et al.*, 2006-2011). Results of crystalloscopic and teziographic tests were estimated by special system of criteria. All data was processed by statistic algorithms with SPSS 11.0 and Primer of biostatics 4.03 use.

It was stated, that at the samples of healthy peoples blood combined exposure (oxygenation and Darsovalization complex) to blood serum crystallogenic and initiated properties approximates to ozone action on it. So, blood oxygenation leads to decreasing of biosubstrate crystallogenic activity (by crystallizability), but ozonation and combined exposure induced its stimulation (by crystallizability and structure index). Facia destruction degree was reduced with all investigated factors action. This tendency was registered in dried specimens of blood serum of burned patients too, but it was smaller as comparison with facias of healthy people. Stimulation of crystallogenesis (growth of crystallizability and structure index) was observed only in ozonated blood samples, but normalization of facia marginal belt was fixed only at oxygenation and Darsovalization complex use.

Analysis of teziographic pictures of dehydrated blood samples shown similar tendencies of biological fluid initiated potential changes. This dynamics visualized by main teziographic coefficient, crystallization degree, belt coefficient and facia destruction degree. Our data indicates combination of blood oxygenation and Darsovalization simulates effect of its ozonation on crystallogenic properties of investigated biological fluid. This effect can be associated with similar (to ozonation) action of combination on pro- and antioxidant system state of biological substrate.

Key: PO03 ENG

Type of presentation: Poster.Pre clinical.

Key words: ozone therapy, crystallogenic properties, burned patients.

Poster

Spondylodiscitis Treated by Ozone Therapy. Experience of 15 cases.

Ramiro Alvarado

Neurosurgeon, Police Hospital and Arco Iris Hospital, La Paz, Bolivia. Casilla 1701 La Paz Bolivia. ralvarado.bo@gmail.com

The Spondylodiscitis is the primary infection of the nucleus pulposus in the intervertebral space, uncommon condition that can begin in the endplate cartilage and extend to the disk and adjacent vertebrae. It can occur after surgical procedures or spontaneously, the latter is the most common.

Generally for the treatment of spondylodiscitis it has always been resorted to antibiotics along with corsets or immobilization with orthopedic belts for two to three months, and a considerable percentage of 25 % to 30% are invasive treatments, surgery is indicated,laminectomy or anterior retroperitoneal approach with instrumentation.

I present the pioneering experience in the primary treatment of 15 cases of vertebral spondylodiscitis treated with the administration of oxygen-ozone mixture, from 2004 to 2012. It was determined that 10 cases were a spontaneous evolution and five post-surgical cases of herniated discs.The results after treatment with ozone discolysis paravertebral puncture followed by ozone have been very satisfactory.

It can be concluded that primary treatment of ozone is showing excellent results obviating the use of corsets, especially antibiotics and surgery.

Key: PO04 ENG

Tipo de Presentación: Poster.

Key words:Spondylodiscitis, ozone, discolysis, oxygen ozone, paravertebral puncture.

Cartel

Tratamiento de la Espondilodiscitis con Ozono Terapia. Experiencia de 15 casos.

[Ramiro Alvarado](#)

Neurocirujano, Hospital Arco Iris y Hospital Policial, La Paz, Bolivia. Casilla 1701 La Paz Bolivia. r.alvarado.bo@gmail.com

La Espondilodiscitis es la infección primaria del núcleo pulposo en el espacio intervertebral, patología poco frecuente, que puede empezar en el cartílago del platillo vertebral y extenderse al disco y las vértebras adyacentes, puede ocurrir tras un proceder quirúrgico o ser espontánea, esta última es la más común.

Para el tratamiento de la Espondilodiscitis se ha recurrido a la administración de antibióticos junto con la inmovilización con corsés o fajas ortopédicas durante dos a tres meses y en un porcentaje no despreciable de 25 % a 30% a tratamientos invasivos, la intervención quirúrgica como la laminectomía o un abordaje retroperitoneal con instrumentación anterior.

Se presenta la experiencia pionera en el tratamiento primario de 15 casos de *espondilodiscitis intervertebral*, tratada con la administración de mezcla de oxígeno-ozono, desde el año 2004 al 2012, se pudo determinar que 10 casos fueron de una evolución espontánea y cinco casos posteriores a intervenciones quirúrgicas de hernias discales. Los resultados después del tratamiento con discolisis con ozono seguidos de punciones paravertebrales de ozonoterapia han sido muy satisfactorios.

Se puede concluir que el tratamiento primario de la ozonoterapia está demostrando excelentes resultados obviando la utilización de corsés, antibióticos y sobre todo la intervención quirúrgica.

Key: PO04 SPA

Tipo de Presentación: Cartel

Palabras clave: Espondilodiscitis, ozono, discolisis, punciones paravertebrales oxígeno ozonoterapia.

Poster

Morphological Effects of Ozone or Ozonized Oil on Rectal Mucosa of Rats.

Alaattin Öztürk,¹[Nurettin Lüleci](#),²Hakan Bozkurtoğlu,³Cengiz Kaya⁴, Necati Tan⁵

¹General Surgery, Sema Hospital, Istanbul, Turkey. ²Pof., Pain clinic, EMSEY Hospital, Istanbul-Turkey, ³General Surgery, Central Hospital, Istanbul, Turkey. ⁴ General Surgery, Pendik State Hospital, Istanbul, Turkey. ⁵ General Surgery, Farabi State Hospital of Darica, Kocaeli.

Ozone is used for treatment of various diseases in different parts of the body. Rectal insufflations are one of the ways of administration of ozone. The purpose of this study was to evaluate the effect of ozone on normal rectal mucosa by rectal route. This study was conducted on Wistar rats. Rats were divided into four groups. The first group was used as a control group, no procedure was performed. The second group was treated with olive oil. In this group 2 mL olive oil was given to rats by the rectal way. The third group was treated with ozonoide (ozonated olive oil group). In this group, 2 mL of ozonized olive oil was given rectally. The fourth group was treated with ozone. In this group, 2 mL of ozone at a concentration of 10 µg/mL in a volume of 2 mL was given to rats rectally. Ozone or oil insufflations were performed every other day for a total of 10 applications to all groups. At the end of this period, animals were sacrificed. Their anorectums were removed and examined histopathologically. The anal mucosa of all rats was examined. No pathologic finding was observed morphologically in the tissues examined. It was seen that there was not any difference between the mucous membranes of the control group and the rest of the treated animals. According to our study, there was no detected side effect after the application of ozone or ozonized oil in the anorectal mucosa.

Key: PO05 ENG

Type of Presentation: Poster. Pre-Clinical Toxicology.

Key words: Ozone, rectal mucosa, rat, morphological effect.

Poster

Treatment of Anorectal Fistulas with Ozone.

Alaattin Öztürk,¹[Nurettin Lüleci](#),²Hakan Bozkurtoğlu,³Cengiz Kaya⁴, Necati Tan⁵

1. General Surgery, Sema Hospital, Istanbul, Turkey. ²Pof., Pain clinic, EMSEY Hospital, Istanbul-Turkey, ³General Surgery, Central Hospital, Istanbul, Turkey. ⁵ General Surgery, Pendik State Hospital, Istanbul, Turkey. ⁶ General Surgery, Farabi State Hospital of Darica, Kocaeli.

It is predicted that the anti-inflammatory and epithelializing effects of ozone can be useful to relieve anal fistula. This study was designed to prove this hypothesis. Twelve patients were enrolled in the study. Ozone therapy was scheduled every other day for a total of 10 sessions. Patients were considered healed when anal discharge stopped and when external orifices of fistulas were closed. The ozone concentration varied between 10-40 µg/mL according to whether or not perianal discharge was critical or purulent. The volume of ozone administered was between 40-60 mL depending on the size of the fistula. Ozone was administered by inserting a 20G IV cannula into the external orifice of the fistula and slowly insufflating the area with ozone. In 3 patients, the discharge discontinued and the external fistula lesion was closed at the end of the sixth session of treatment. In two patients was observed a reduction in anal discharge, in this case additional 5 sessions were applied. Fistulas were completely closed in three patients (27.2%). No side effects or complications related to the administration of ozone were observed in any of the patients included in the study. The success rate of ozone administration to treat anus-rectal fistulas was low. Ozone-related side effects were not observed in this study.

Key: PO06 ENG

Type of Presentation: Poster. Clinical Trial.

Key words:Ozone, rectal mucosa, anal fistula

Poster

Ozone Therapy and Epidermal Growth Factors: A New Approach in the Treatment of the Diabetic Foot.

José Ignacio Fernández Montequín

Institute of Angiology and Vascular Surgery. Havana, Cuba.

Since 90's, American and Cuban scientists were given the task of obtaining in different ways a human growth factor, capable of being incorporated to facilitate neurogenic tissue regeneration. It was in 1985, that a group of researchers from the Center for Genetic Engineering and Biotechnology were able to obtain the molecule of this granulation stimulating factor recombinant form. Used for over 20 years in applications cream, it was achieved by joining the experience of the researchers of this center with the Institute of Angiology and Vascular Surgery, Havana Cuba, a recombinant human growth factor (called Heberprot P) which began to be used, from a lyophilized presentation, as intra-and perilesional in diabetic foot ulcers. In order to demonstrate that rates of major amputations of the lower extremities in this population may be decreased to less than 10% and can be combined with different treatments, such as ozone, we present the experience from the national Cuban health in addition to the results in the international area. Admitted to the Cuban Health Programme and the standard of care of the different gradations of the Diabetic Foot in 1999, was introduced in the international area as a Comprehensive Care Program Diabetic Foot from 2004, with a recognized patents in 21 countries, effective integration in health systems of 17 nations, obtaining as a balance, favorable results in more than 43,000 patients which have received their benefits. Among the most important, we find that the rate of major amputation was reported in much world literature on oscillating figures from 50 % to 80 %, when applying Heberprot P major amputation rates down to 10% in the treated groups. It is considered the most effective product for the treatment of ulcers such complex, including naturopathic and ischemic factors. The conference is a focus on current concepts of complex wounds, and how current therapies can be combined with the implementation of this new knowledge of the current scientific community as well as an overview of different forms of local applications of the factor, and how it changes the current concepts in the management of diabetic foot. Parallel with this, combination therapy is introduced to consider the latest in the treatment of diabetic foot: the combination of ozone therapy in rectal and bag to induce immunomodulatory action, local anti-infective agent, in addition to inhibiting the aggregation and platelet adhesiveness. Heberprot P is an extremely effective therapeutic tool in the ischemic diabetic foot in any degree. The ozone therapy is an effective tool for infection control, immunomodulation and inhibition of platelet aggregation in this population.

Key: PO07 ENG

Tipo de Presentación: Poster.

Key words: Human Epidermal Growth Factor, Diabetic foot, Ozonotherapy in combine therapeutic.

Cartel

Ozonoterapia Unido al Factor de Crecimiento Epidérmico Humano: Un Nuevo Enfoque Terapéutico en el Pie Diabético.

José Ignacio Fernández Montequín

Instituto de Angiología y Cirugía Vascular. La Habana. Cuba.

Desde la década de los 90, científicos norteamericanos y cubanos se dieron a la tarea de obtener por diferentes vías un factor de Crecimiento Humano, que fuera capaz de ser incorporado a lesiones neurogenas para favorecer regeneración tisular. Fue de ese modo que en 1985, un grupo de investigadores del Centro de Ingeniería Genética y Biotecnología lograron obtener la molécula de este Factor estimulante de granulación en forma recombinante. Usado durante más de 20 años en aplicaciones en crema, se logra, al unirse la experiencia de los investigadores de este centro con el Instituto de Angiología y Cirugía Vascular, de La habana Cuba, *un factor de crecimiento humano recombinante* (denominado Heberprot P) el cual comienza a utilizarse, a partir de una presentación liofilizada, en forma intra y perilesional en las ulceras por Pie Diabético. Con el objetivo de demostrar que las tasas de amputaciones mayores de las extremidades inferiores en esta población, se puede disminuir a menos de un 10%, así como que puede combinarse con diferentes terapéuticas como la ozonoterapia, se presenta la experiencia tenida en el sistema nacional de salud cubano, además de exponer los resultados en la arena internacional. Incorporado al Programa de Salud cubano y a las Normas Terapéuticas de las diferentes gradaciones del Pie Diabético, en 1999, logra su introducción en el ámbito internacional en forma de Programa de Atención Integral al Pie Diabético a partir del 2004, con patentes reconocidas en 21 países, incorporación efectiva en sistemas de salud de 17 naciones, obteniendo como saldo, resultados favorables en más de 43000 pacientes que han recibido sus beneficios. Entre los resultados más importantes, se obtiene que la tasa de amputación mayor se registra en la literatura mundial en cifras que oscilan entre el 50 % al 80%; cuando se aplica el Heberprot P, las tasas de amputaciones mayores descienden al 10% en los grupos tratados. Se considera el producto más efectivo para el tratamiento de este tipo de ulceras complejas, incluyendo factores neuropáticos e isquémicos. En la conferencia se hace un enfoque de conceptos actuales de Heridas complejas, y como pueden combinarse las terapéuticas actuales, con la aplicación de este novedoso conocimiento de la comunidad científica actual, así como una visión de diferentes formas de aplicaciones locales del Factor, y como el mismo cambia los conceptos actuales en el manejo del Pie Diabético. Unido a ello, se introduce la combinación terapéutica que consideramos la más moderna en el tratamiento del Pie Diabético: la combinación de la ozonoterapia, en bolsa y por vía rectal, para inducir acción inmunomoduladora, como agente anti infeccioso local, además de inhibir la agregación y adhesividad plaquetaria. El Heberprot P, es un arma terapéutica de extrema eficacia en el Pie Diabético isquémico en cualquier grado. La ozonoterapia es un arma eficaz para los controles de infección, inmunomodulación e inhibición de la agregación plaquetaria en esta población.

Key: PO 07 SPA

Tipo de Presentación: Cartel. Revisión – Actualización.

Palabras clave: Factor de Crecimiento epidérmico humano, Pie Diabético, Ozonoterapia en terapéutica combinada.

Workshops

WS01

[Discólisis: Práctica en Cadáveres y Simuladores. Infiltraciones Con Ozono en Clínica del Dolor](#)

Workshop

Discólisis: Práctica en Cadáveres y Simuladores. Infiltraciones Con Ozono en Clínica del Dolor.

Adriana Schwartz Tapia,¹ Joaquín Cabot Dalmaut,² Fernando Kirchner van Gelderen,³ F. Javier Hidalgo Tallón,⁴ José Germán Medina,⁵ Juan López-Laserna Ruiz.⁶

1. Director of Clínica Fiorela, Madrid, Spain. President of AEPROMO. President of IMEOF. Secretary ISCO3.
 2. Knee Unit. Hospital Universitari de Bellvitge. Barcelona. Spain. Hospital Quiron Barcelona.
 3. Gabinet Medic Maresme, Mataró, Spain
 4. Clinalgia. Avd. Libertad, 3, Murcia.
 5. Senior Professor of the Universidad Central de Venezuela. Faculty of Medicine. Head of Spinal Surgery Unit Loire Medical Center, El Paraiso. Caracas Venezuela. Secretary of the Venezuelan Society of Ozone Therapy. Spine Surgeon. Orthopedic Traumatology.
 6. Chief of the Foot and Ankle Unit. San Juan de Dios Hospital. Cordoba.
-

Dr. Fernando Kirchner van Gelderen: MD. Traumatología. Director, Gabinet Mèdic Maresme, Caldes d'Estrac. Vocal de AEPROMO. Miembro Comité Editorial, Revista Española de Ozonoterapia.

Columna Vertebral. Anatomía. Generalidades diferencias entre columna cervical, dorsal y lumbar. Complejo Lumbo-Sacro y Sacro-Ilíaco. Técnica de infiltración intra-discal en segmentos cervical y lumbar. Discólisis. Infiltraciones facetarias. Extremidad superior. Características anatómicas y su relación con los puntos de infiltración. Hombro, codo y muñeca.

Prof. José Germán Medina (Venezuela). MD. Máster en Salud Pública. Cirugía Espinal. Profesor, Universidad Central de Venezuela. Jefe, Trauma y Ortopedia, Hospital Vargas, Caracas. Secretario, Sociedad Venezolana de Ozonoterapia (SOVEOT). *Técnica discólisis lumbar y cervical ilustración en video.*

Dr. Joaquín Cabot Dalmau (España). MD. Cirugía Ortopédica y Traumatología. Hospital Quirón. Vocal de AEPROMO. Miembro Comité Editorial, Revista Española de Ozonoterapia.

Infiltraciones por debajo de la columna. Regiones anatómicas: Pubis, cadera, rodilla, tibia, tobillo, pie.

Dra. Adriana Schwartz (España). MD. Directora Clínica Fiorela, Madrid. Directora Científica Instituto Clínico Fiorela, San Pedro Sula (Honduras). Presidenta de AEPROMO. Presidenta de la Federación Internacional Médica de Ozono (IMEOF). Secretaria del Comité Internacional Científico de Ozonoterapia (ISCO3). Directora, Revista Española de Ozonoterapia.

Ozono y Factores de Crecimiento. Combinación de técnicas.

Departamento de Anatomía 2, Facultad de Medicina, Universidad Complutense de Madrid, Campus de Moncloa. Madrid (España).

Key: WS 01 SPA

Tipo de presentación: Taller teórico / práctico, solo en español.

Key Words: Ozono, discólisis, dolor

Medidas Generales de Ética y Bioseguridad

Evite el contacto de la piel o membranas mucosas con sangre y otros líquidos de precaución universal.

Utilice siempre los elementos de protección personal durante la realización de procedimientos (gorro, bata, tapa bocas, gafas, botas, guantes, mascarilla).

Lávese las manos antes y después de cada procedimiento.

Los estudiantes o docentes que presenten lesiones exudativas o lesiones térmicas deben evitar el contacto con el material de estudio.

Desarrolle el hábito de mantener las manos lejos de la boca, nariz, ojos y cara. Esto puede prevenir la auto-inoculación.

Maneje todo material como potencialmente infectante.

Un accidente por pequeño que sea debe comunicarse al docente responsable de la práctica de laboratorio.

No use joyas durante la realización de procedimientos en su área de trabajo.

Los desechos corto punzantes deberán manejarse con estricta precaución, deséchelos en los guardianes de agujas.

Los guantes o material contaminado deberán ser desechados en bolsas rotuladas con el símbolo de riesgo biológico.

Evite deambular con los elementos de protección personal fuera del área de trabajo.

No está permitido comer, beber, fumar, manipular lentes de contacto, maquillarse o almacenar alimentos para uso humano en áreas de trabajo.

No está permitido hacer registros de audio, video o fotográficos en el área del laboratorio, por tanto, no se permitirá el ingreso de medios técnicos a tal efecto al laboratorio (Lo anterior es una normativa interna del Lab. de la Univ.).

Mantenga su credencial identificativa en su solapa y respete los horarios que les fueron asignados para cada práctica.

Cualquier incumplimiento del reglamento de ética o bioseguridad, podrá dar lugar a retirarlo(a) del laboratorio y anular la práctica.

Horarios, Organización y Rotación*

Actividad	Área	Profesor	Contenido
1	Cadáver 1	Dr. Fernando Kirchner Dr. José Germán Medina	Abordaje de las Hernias Discales, Cervicales y Lumbares
2	Cadáver 2	Dr. Juan López Laserna Ruiz	Infiltraciones en pie
3	Cadáver 2	Dr. F. Javier Hidalgo Tallón	Infiltraciones en cabeza
4	Cadáver 3	Dr. Joaquín Cabot Dalmaut	Infiltraciones en cadera y rodilla
5	Aula	Dra. Adriana SchwartzTapia	Trabajo con factores de crecimiento y prácticas de auto hemorragia

*El Dr. Gregorio Martínez Sánchez, se encontrará dentro del recinto coordinado la rotación entre los grupos.

Actividad (Horarios)					Estudiantes identificados con:
1	2	3	4	5	
11.00	12.30	15.00	16.30	18.30	Letra A color rojo
12.30	15.00	16.30	18.30	11.00	Letra B color azul
15.00	16.30	18.30	11.00	12.30	Letra C color verde
16.30	18.30	11.00	12.30	15.00	Letra D color amarillo
18.30	11.00	12.30	15.00	16.30	Letra E color blanco

Notas:

Entre las 10.30 – 11.00 y entre las 18.00 - 18.30 está prevista una pausa para café (ver programa).

Entre las 14.00 -15.00 está prevista una pausa para almuerzo (A cargo de cada participante).

Los profesores estarán identificados con una credencial que indicará su nombre.

Durante la acreditación cada estudiante recibirá una credencial de un color y letra que lo asignará a un grupo.

Cada cadáver estará identificado con su número correspondiente.

Para pasar a la actividad No. 5, que se desarrollará en el aula, debe lavarse las manos.

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Dra. Mercedes Hernández Avilés (SPA)	1
Dr. F. Javier Hidalgo Tallón (SPA).	1
Dr. Fernando Kirchner van Gelderen, M.D.,(SPA).....	1
Dr. Heinz Konrad (BRA)	1
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Dr. Gregorio Martínez-Sánchez (CUB).....	1
Dr. Nabil Mawsouf (EGY)	1
Dr. Cakir Ruhi (TUR).....	1
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Dr. Alberto Alexandre(ITA)

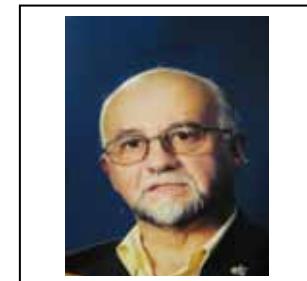


MD. Neurocirugía. Cirugía Mínima Invasiva de la Espina Dorsal. Miembro del Comité Internacional Científico de Ozonoterapia (ISCO3). Miembro Comité Editorial, Revista Española de Ozonoterapia.

MD. Minimally Invasive Spine Surgery. Member, International Scientific Committee of Ozone Therapy (ISCO3). Member Editorial Board, Spanish Journal of Ozone Therapy.

Dr. Ramiro Alvarado (BOL)

Neurosurgeon



- 1.-Graduate from First Moscow Medical Institute 1975
- 2.-Specializationin Neurosurgery at Neurosurgery Clinic of Moscow First Medical Institute from 1975-1978
- 3.-Specialization in Neurosurgery at Karolinska Institute in Stockholm Sweden
- 4.-Member of the Bolivian Society of Neurosurgeons
- 5.-Member of the Bolivian Academy of Medical History
- 6.-Founder and First President of the Bolivian Association of Study Pain
- 7.-Member of the Bolivian Association of Pain
- 8.-Member of the Latinoamerican Federation of Neurosurgery
- 9.-Member of World Federation of Neurosurgery
- 10.-Member of World Federation of Oxygen-Ozone Therapy
- 11.. Adherent Member of the Bolivian Society of Neurology
- 12.-Vice President of Neurological Surgical Society of the South Cone
- 13.-Editor of Bolivian Pain Journal (*Revista Boliviana del Dolor*)

Published Papers (the most Important)

- 1.-Trepanationand Cranial Deformities in Tiwanaku *Revista Socieda Boliviana de Cirugia*
- 2.-Ozono Therapy to Resolve Disc Space Infection Spondylodiscitis *Rivista Italiana de Ossigeno-Ozonoterapia*
- 3.-Initial Experience of Oxygen Ozone treatment for Disc herniation *Rivista Italiana de Ossigeno Ozonoterapia*
- 4.-Treatmentof the Radicular Compression with Ozone Therapy *Revista Chilena de Neurocirugia 2007*

Participation as Lecturer in Different Convention especially in Latino American Congress of Neurosurgery.

Dr. Froylán Alvarado Güémez (MEX)

BORNIN Culiacán, Sinaloa, México. July 31th, 1955.

LANGUAGES: Chinese, English, Can read French.

COLLEAGUE DEGREE: Medical Doctor. Faculty of Medicine. Universidad Autónoma de Guadalajara 1973-1978. Record SSA73428, Professional Certificate 585670

LECTURE CATEGORY AND ACADEMICAL ACTIVITIES.

- Full Time Professor. Faculty of Medicine. Universidad Autónoma de Sinaloa, 1978- 1980// Critical Care Medical Training
- Medical Residence. Hospital Colonia- //Universidad Nacional Autónoma de México. México, D.F. 1980-1982.// Acupuncture training teacher at Center for Chinese Medicine of Mexico City 1982 – 1992.
- Associated Professor of Ozone therapy Training Program (Basic/ Intermediate/ Advanced Levels). Universidad Autónoma de Sinaloa. Faculty of Medicine. Continuous Medical Education Department. Since 2005.
- Organizer and Profesor since April 2003 of seventeen (2 per year) *Ozone Therapy Training Programs* divided in 3 levels; Basic, Intermediate and Advanced. Duration 52 h. Recognized and endorsed by Facultad de Medicina de la Universidad Autónoma de Sinaloa and Mexican Ozonotherapy Association. The total number of physicians trained in both Mexicans and Hispanic-Americans exceed 650 MD's.
- Continuous Medical Education Department. Faculty of Medicine. Universidad Autónoma de Sinaloa.
- Coordinator and Associated Professor of the following Annual Ozonotherapy Courses: Training workshop of Discolisis with Ozone March 31 - April 2, 2006; October 26 - 28, 2007; July 24 - 26, 2009; November 26 - 28, 2010; May 20 - 22, 2011 & Dec. 2-4, 2011. Courses of Ozone Infiltration for Pain Management, April 26 - 28, 2008; March 28 - 29, 2009; May 30 - 31, 2009; April 17 – 10, 2010; May 29 - 30, 2010; March 30-31 and April 1st. 2011 & March 30-31 and April 1, 2012.
- DIPLOMA by the Spanish Association of Physicians in Ozone (AEPROMO) as a teacher of the 50 hours' course of INTENSIVE OZONE theoretical and practical. -Developed theme: "Knowledge and basic skills for the practice of ozone therapy." Madrid, January 25 - 30, 2010.
- Second International Neuro-rehabilitation and Second International Workshop on Equestrian Rehabilitation.
- Professor Course Certified Professor of the Pre-Meeting Course: Theme: "Oxidative Stress: Nutrition and Ozone" of the Held at the Palacio de Convenciones in Havana, Cuba. 8 al 12 March 2010.
- Diploma awarded by the Spanish Association of Medical Professionals in Ozone (AEPROMO) for his role as Professor of nine hours of training and updating in OZONE. Madrid, June 5, 2010.
- Attendant at the INTERNATIONAL SCHOOLS OF OZONETHERAPY MEETING and participation as Moderator of Round Table at the Royal Academy of Medicine. Madrid. 3 and June 4, 2010.
- POSTGRADE COURSES AND SKILLS: -Acupuncture, Moxibustion and Massage Training Specialist at Beijing // Traditional Chinese Medicine Institute. Beijing, China. 1988-1990.// - Homeopathic Medicine Specialization 1 200 h // Escuela Nacional de Medicina y Homeopatía. Instituto Politécnico Nacional. México, City. 1987-1988. // - Homeopathic Medicine Certificate N° 00186 // - Clinical Training in Magneto therapy and Metabolic Treatment with Prof. Dr. Demetrio Sodi Pallares. México City. April 3 – 7, 1995. // Neural Therapy Diploma. 200 h training Diploma. Center of Integrative Medicine Research. Faculty of Medicine. Universidad Autónoma de Guadalajara. 2006 – 2007. // Basic Proficiency in Chelation Therapy. Certificate of Achievement in written Examination. American Collage for Advancement in Medicine. Phoenix, Arizona. November 11-14, 2002. // Update International Intensive Course in Clinical Toxicology in Mexico City. American College of Medical Toxicology, Association of Medical Specialists in Clinical Toxicology of Mexico, AC, Toxicologic Center, Hospital Angeles Lomas Anahuac University. Huixquilucan, Mexico 29 - 31 May 2008. (30 h.).

ACTUAL RESPONSABILITIES AND OTHER ACTIVITIES:

President and Founder of the Mexican Ozonotherapy Medical Association. Since September 2005.

(www.amazon.org.mx) Ozonoterapia México S.A. de C.V. Medical-Director-since-2003. (www.ozonoterapiamexico.com).

MEMBER OF ISCO3.

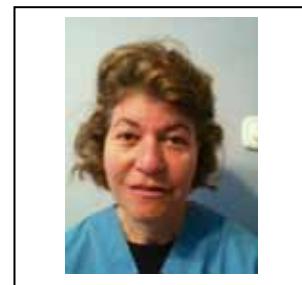
Chairman of Organizing and Scientific Committee as well as lecturer of the III Ozone therapy Mexican Congress and II Ozone IMEOF Congress held in Cancun, Mexico on November 10 - 12, 2011



Dra. Rosa María Barceló Cortés (SPA)

Laboral Experience:

Medical Private Center. Private Office of Psychology
Teacher of Master of Acupuncture. Valencia University



Associations:

Doctors' Official College of Castellón.Psychologists Official College of Castellon.Spanish Society of Aesthetic Medicine.Spanish Society of Medical and Surgical Laser.Ozonotherapy's Society. AEPROMO.

(1976-1979) Nursing graduates. Nuestra Señora De La Esperanza Hospital. Barcelona.
(1976-1982) Dra. In Medicineand Surgery, Faculty of Medicine, University of Barcelona.
(1983-1986) Medical Acupuncture, Sagrado Corazón Hospital Barcelona.
(1983)Course of Doctorate in Nutrition and Dietetics: Faculty of MedicineClinic Hospital. Barcelona.
(1986) Course of Doctoratein Neuroanatomy and Auriculopuncture: Faculty of Medicine Clinic Hospital, Barcelona.
(1988-1993)Licensed in Psychology, Jaume I University. Castellón.
(1990-1993)Master in Sexology, Espill Institute. Valencia.
(1990-1991)Master In Aesthetic Medicine, Spanish Associationof Aesthetic Medicine and International Unionof Aesthetic Medicine.
(2005-2006) Master In Aeshetic Medicine, Balears Islans, University.
(2007) University Specialist Clinical Hypnosis
(2010)Expert in Ozonotherapy
(2010-2015) Doctoral Thesis in progress"Impact of the Ozonotherapy in Fibromyalgia. Measure of Psychological and Biological Variables ", Jaume I University Castellón. Spain.

Congress:

- 11th Congress of the Spanish Organizationof Aesthetic Medicine Barcelona. Presentation: "Alterations of the Alimentary Behavior, Multicentral Study" (1995)
- 12th Congress of the Company of Aesthetic Medicine. Barcelona, oral communication: "Disorder of Gluttony" (1996)
- 4th Hispanic - Argentine Advances and Update in Medical Aesthetics. Buenos Aires. Argentine. Presentations: "Evaluation of Food Disorders", "Detection of Food Disorders", "Current Treatment of Food Disorders". (1996)
- 5th Days Advances and Updates in AestheticsMedicine. Murcia Presentation: "The Compulsive Food Disorders". (1998).

Dr. Ofir Betancourt (VEN)

Spine Surgeon - Traumatology
Ozone therapist
Vicepresident of the Venezuelan Society of Ozone Therapia (SOVEOT).



EDUCATION

1993- Spine Surgery. Overseas Visiting Orthopaedic Registrar Birmingham. University Institute of Orthopaedics. Oswestry Shropshire England. Dir. Prof. B.J.O. O'connor.
1987- Orthopaedic Surgeon. Specialist in Orthopedics. Hospital "José María Vargas". Caracas-Venezuela.
1979 - Surgeon. Universidad de los Andes. Mérida - Venezuela.

LANGUAGES: Spanish/ English.

Courses / Congress

- Cellular Therapy. Biotechnochemistry. Caracas Venezuela.
- Advanced training program in ozone therapy (Autonomous Sinaloa University). México.
- III World Congress of Oxygen Ozone Therapy. Brescia Italia.
- XIII International Conference on Management of the Spine. Colombian Society of Orthopedic Surgery and Traumatology. Bogotá, Colombia.
- Endoscopic Percutaneous Disc Decompression using Endoscopic Spine Surgery System Wolf, according to Dr. Yennng-Yeff. Universidad el Bosque. Clinica Reina Sofia. Bogota Colombia.
- Discectomy percutaneous spinal pathologies. Hospital Frank Pais. Havana, Cuba.
- Treatment and surgery in pathologies of the spine. Hospital La Española. Montevideo Uruguay.
- Specialty day meeting, Federation of spine associations. New Orleans. L.A.
- X Cuban Congress of Orthopedics and Traumatology II International Seminar on joint replacement surgery of hip and II
- International Seminar bone minifixation. ORTOP. Habana Cuba.
- XVII International Congress day I orthopedics and traumatology. Dominican - Venezuela. Republica Dominicana.

MEDICAL AND SCIENTIFIC SOCIETIES

Founding member and vice president of the Venezuelan Society of Ozone Therapy

Member of the Venezuelan Society of Traumatology and Orthopedics.

Member of the American Society of Traumatology and Orthopedics.

Member of the British Society of Traumatology and Orthopedics.

Member of the American Academy of Orthopaedics.

Member of the Mexican Association of Ozonotherapy

Profesional address:

Lecherías. Edo. Anzoátegui: Centro Médico Ribadeo, Av. Principal Lecherías. / Pto. Ordaz. Edo. Bolívar: Edf. Torre Casa Centro(al lado clínica esperanza), Alta Vista. Teléfono: 00(58)-281-5113292 /
414-8382874. Email: ofirbetancourt@gmail.com / ob_columna@hotmail.com / pagina web: www.ofirbetancourt.com

Dr. Velio Bocci(ITA)

Department of Physiology, University of Siena, via A. Moro 2, 53100 Siena, Italy. Phone: +39 (0)577 234226; Fax: +39 (0) 577 234219. Email: bocci@unisi.it

The Ministry of Education has nominated (May 2003) him Emeritus Professor at the Department of Physiology, University of Siena. Member of ISCO3

He was born in Siena, Italy, on December 21st of 1928. In 1947, although he had been awarded a disliked accountant degree, he was able to enrol as a medical student at the University of Siena in 1948 and he was the first of his course to be awarded the Medical Doctor degree in July 1954 with 110/110 cum laude.



He has personally contributed to develop three clinical trials, of which two at the Siena University Polyclinic: the first regarding age-related macular degeneration (dry form) (1996-2001) and the second regarding chronic limb ischemia (2002-2005). Both studies, reported in international journals, have well clarified the great advantage of ozonotherapy in comparison to orthodox treatments. A third study (1998-2000) was performed at the hospital at San Patrignano (Rimini) to evaluate the effect of ozonated autohemotherapy in HIV infection. An improvement of the quality of life was noted but the infection was not modified. Moreover, he has gratuitously practiced ozonotherapy in a charity clinic (Misericordia at Taverne D'Arbia, Siena) from 2005 up to March 2008: While excellent results were achieved in various ischemic diseases, with the exception of a transitory feeling of well-being, preterminal cancer patients with liver and lungs metastasis, previously heavily treated with chemotherapy, did not show any improvement.

He is the author of about 480 publications and monographs, mostly published in international, peer-reviewed journals including a book on Interferons (1993) and three books on oxygen-ozone therapy (2000, 2002, 2005). The last two are in English: Oxygen ozone therapy. A critical evaluation, pag 1-440, 2002, Kluwer Academic Publishers Dordrecht, The Netherlands and the second: Ozone. A new medical drug. pag. 1-295, 2005, Springer, Dordrecht, The Netherlands. The second edition of the latter book has been just printed. So far, these books have been translated into Chinese, Japanese and Greek. In 1995, he was awarded the Hans Wolff prize for innovative researches in the field of ozonotherapy. By considering him the top expert of ozonotherapy, the International Ozone Association (Zurich) invited him to hold the lecture on "Ozone in Biology and Medicine" at the International Ozone Symposium (Basel, October 21-22 1999) during the 200th Anniversary of the birth of the ozone discoverer C.F. Schönbein. He was awarded the "Stramezzi" prize for his books on ozonotherapy by the Academy of History of Medical Art in Rome (October 2003). The reader may be interested in five recent reviews, which briefly give a fair idea of the basic biology and usefulness of ozonotherapy in Medicine: (1)Scientific and medical aspects of ozone therapy: State of the art. Archives of Medical Research, 37 (2006) 425-435; (2)Is it true that ozone is always toxic? The end of the dogma. Toxicology and Applied Pharmacology, 216 (2006) 493-504 (3)The case for oxygen-ozonotherapy. British J. of Biomedical Science, 64 (2007) 44-49 (4) Basic Biological and Therapeutic effects of Ozonotherapy in Human Medicine,Review published by UNESCO-EOLIS Encyclopedia, 2008 and (5) The ozone paradox: ozone is a strong oxidant as well as a medical drug, Medicinal Research Reviews,29, (2009) 646-682. They are available on request. All the other papers can be traced in PubMed. He owns also three US patents.

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More information in <http://www.isco3.org/files/BocciBioByRobertoQuintero.pdf>

Dra. Oxana BikinaAnatolievna (RUS)

Profesional Address 603600 Department of Dermatovenereology of Nizhny Novgorod State Medical Academy, h.49, Kovalichinskaya street, Nizhny Novgorod, Russia.

Academic degrees: Ph. D.

3. Academic appointments: Docent (Associate Professor) of Department of Dermatovenereology
4. Teaching experience: 1993-2012
6. Research Activity: Ozone therapy in dermatology and cosmetology, allergic dermatoses, atopic dermatitis, rosacea, acne
7. Participation in international conferences:
 - ✓ 12th World Congress "Ozone in medicine", 1995, Lille, France.
 - ✓ Zalzburg medical seminar "Infectious diseases", April 2003, Zalzburg, Austria.
 - ✓ Symposium "Manfaat Terapy Ozon" 12 June 2004 Jakarta, Indonesia.
 - ✓ IV National Acupuncture congress, Sofia, October 18-21, 2007.
 - ✓ 1st International Congress of ozone therapy federation, 16-19.10.2008, Mexico.
 - ✓ AEPROMO Congress "New horizons of ozone therapy", Pontevedra, Spain, June 2009.
 - ✓ International Meeting of Ozone Therapy Schools.-3-5.06.2010, Madrid, Spain.
 - ✓ Internship AAF 1-25.07.2008 Vena, Division of Infectious Diseases, Allergy and Immunology, Department of Dermatology. Supervisor – Pr. G. Stingl
 - ✓ Training course for ozone therapeutists, Tryavna, Bulgaria, August, 2007.
 - ✓ II International Congress of the International Medical Ozone Federation IMEOF, III Congress of the Mexican Association of the ozone therapy AMOZON, Cancun, Mexico, 10-12.11.2011.
8. Membership in Professional Association: Nizhny Novgorod Department of Russian Dermatovenereological Society, Russian Ozone therapy Association
9. Publications (last 10 years):
 - 1) "Experience in Using Medical Ozone in the Clinic of the Nizhny Novgorod Scientific Research Institute of Skin & Venereal Diseases" N.C. Nikulin, O.A. Bitkina // EADV Congress, London, 12-16.10.2005
 - 2) "Dynamics of Lipid Peroxidation Indices under Influence of Ozone Therapy in Patients with Complicated Forms of Rosacea and Acne Disease" N.C. Nikulin, O.A. Bitkina, L.I. Philippova, T.V. Kopytova // Proceed. 14 IOA Congress, Strasbourg, 2005
 - 3) "Methods of biochemical control of effectiveness and safety of local ozone therapy in acne rosacea patients" N.C. Niculin, O.A. Bikina, L. I. Philippova, T.V. Kopytova // EADV Congress, Rhodes -Greece, 4-8.10. 2006
 - 4) "Local ozone therapy in complex treatment of rosacea patients" N.C. Niculin, O.A. Bitkina, L.I. Philippova, T.V. Kopytova, G.A. Panteleeva // EADV, Vienna, 2007
 - 5) "The experience of using ozone-oxygen mixture into facial acupuncture points for severe form of acne rosacea" O.A. Bitkina, N.C. Niculin, L.I. Philippova // IV National Acupuncture congress Sofia, October 18-21, 2007, Books of Abstracts, p. 61-62
 - 6) "The use of ozone in complex therapy of burn disease" S.P. Peretyagin, A.V. Vorobyov, A.A. Struchkov, O.V. Kostina, O.A. Bitkina, N.A. Cordinskaya, N.A. Kvitsinskaya // First International congress of AEPROMO "New horizons of ozone therapy", Pontevedra, Spain, 4-6.06.09
 - 7) "Clinical and laboratory evaluation of ozone therapy on dermatocosmetological practice" O.A. Bitkina, N.C. Nikulin, T.V. Kopytova, K.N. Kontorchokova, A.P. Bavrina // First International congress of AEPROMO "New horizons of ozone therapy", Pontevedra, Spain, 4-6.06.09
 - 8) "Dynamic of oxyproline and glycosaminoglycans after ozone therapy of severe acne and rosacea" O.A. Bitkina EADV congress, 7-10.10. 2009, Berlin, poster N 961



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- 9) "Functional – metabolic and methodological basement of rehabilitation ozone therapy" S.P. Peretyagin, O.A. Bitkina, A.A. Struchkov // International Meeting of Ozone Therapy Schools.-3-5.06.2010, Madrid, Spain

Dr. Joaquín Cabot Dalmaut (SPA)



Specialist in Orthopedic Surgery and Traumatology.

Date of birth: March 1, 1950.

Professional address: COTA, Chiron Clinical practice. c / Mare de Deu de la Salut, 78 4 °, b. Barcelona, Spain. 08034.

Phone: 34932199451 Mail: 9152jcd@comb.es

Doctor in Medicine and Surgery and a specialist in Orthopedic Surgery and Traumatology develop his professional activity in the Hospital of Bellvitge (Spanish National Social security) Barcelona, as Boss of the Knee and Arthroscopy Unit and his private practice. COTA Hospital Quiron of Barcelona.

His professional orientation in orthopedic surgery and traumatology is especially centers in the area of knee surgery and arthroscopy, as well as the arthroplasty.

- Responsible Chief of the arthroscopy department and knee surgery at the University Hospital of Bellvitge since October 5, 1994.
- President of the Spanish Association of Arthroscopy in 1992 and President of the Spanish Society of Knee in 1993.

Member of numerous scientific societies such as the Spanish Society of Orthopedic Surgery and Traumatology (SECOT), International Society of Knee Surgery Arthroscopy and Sports medicine (ISAKOS), European Society of Knee surgery and Arthroscopy (ESKA).

- He has presented over 300 communications and presentations in scientific sessions.
- At the present time he dedicates part of his activity to study new therapies of the muscle-skeletal pain without surgery, such as: growth factors, ozone therapy and Prolotherapy.

Dr. Bernardino Clavo (SPA)

bernardinoclavo@gmail.com, bernardinoclavo@terra.es

Academic Background: MD, Univ. of Alcala de Henares, Madrid, Spain. Specialty training, Radiation Oncologist, H. Puerta de Hierro, Madrid, Spain. PhD, Universidad Autonoma de Madrid, Spain. Ph.D. Awarded with "Extraordinary Award", Universidad Autonoma de Madrid, Spain.

Current Positions: Staff at the Dr. Negrin University Hospital: Dep. Radiation Oncology, Research Unit.

Coordinator of the Strategic Program (at the Dr. Negrin Hospital): Experimental models and translational research in regenerative medicine, and nonpharmacologic and ozone therapies.



Membership of: International Scientific Committee of Ozone Therapy (ISCO3), American Society of Clinical Oncology (ASCO), American Society for Therapeutic Radiology and Oncology (ASTRO), European Society for Therapeutic Radiology and Oncology (ESTRO), European Association for Cancer Research (EACR).

Research Areas: Ozone therapy. Spinal cord stimulation. Measurement and modification of hypoxia/ischemia in tumor (brain, head and neck) and non-tumor tissues.

Most relevant 5 research projects in the last 5 years

- 3-2006 to 3-2009 "Ozonoterapia en el tratamiento de tumores cerebrales: Evaluación de su efecto clínico e Impacto en la calidad de vida del paciente". FUNCIS 2-05.
- 9-2006 to 6-2011. "Valoración de la hipoxia en tumores cerebrales con ¹⁸F-FMISO PET y del efecto de la estimulación eléctrica de la médula espinal cervical sobre la misma.". F.I.S. PI 06-1413. (Cofinanciación con fondos del Plan Nacional de I+D+IT y FEDER).
- 9-2007 to 6-2012. Ensayo Clínico aleatorizado del efecto de la Ozonoterapia en el tratamiento de la hernia de disco candidata a cirugía. FIS EC 07-90024. (Cofinanciación con fondos del Plan Nacional de I+D+IT).
- 1-2011 to 12-2013. "Valoración del efecto protector del ozono sobre el rechazo crónico en el trasplante pulmonar experimental". ISCIII PI 10/01485.

Papers published in International Journals: about Ozone therapy or cancer last 5 years.

- ✓ Ozone therapy in the management of entero-cutaneous fistulas resulting from post-surgery abdominal/pelvic mesh placement. J Pain Symptom Manage. 2012 (accepted)
- ✓ Persistent portacath-related fistula and fibrosis in a breast cancer patient successfully treated with local ozone application. J Pain Symptom Manage. 2012 Feb;43(2):e3-6
- ✓ Syndrome of brain ischemia and hypometabolism treated by ozone therapy. Forsch Komplementmed [Research in Complementary Medicine]. 2011;18:283-287.
- ✓ Treatment of refractory radiation-induced hemorrhagic proctitis with ozone therapy. Radiother Oncol. 2010;96(Supl 1):379.
- ✓ Re: Gazzera R, Galarza M, Neroni M, et al/Fulminating septicemia secondary to oxygen-ozone therapy for lumbar disc herniation: case report. Spine 32(18):2036, 2007.
- ✓ Ozone Therapy for Progressive Radiation-Induced Hematuria. J Altern Complement Med. Jun 2005;11(3):539-541.
- ✓ Historia y Experiencia con ozonoterapia en el Hospital Universitario Dr. Negrin de Las Palmas. Rev. Soc. Esp. Dolor. 2005; 12(II):53-60.
- ✓ Adjuvant Ozonotherapy in Advanced Head and Neck Tumors: A Comparative Study. Evid Based Complement Alternat Med 1(3):321-325, 2004.
- ✓ Ozone Therapy for Tumor Oxygenation: a Pilot Study. Evid Based Complement Alternat Med. Jun 1 2004;1(1):93-98.
- ✓ Ozone Therapy on Cerebral Blood Flow: A Preliminary Report. Evid Based Complement Alternat Med. Dec 2004;1(3):315-319.

Dra. Mirta Copello Noblet (CUB)



General Nurse: 1964
Nurse Specialist in Anesthesia 1966
Dr. in Medicine 1985
Junior Specialist in Ophthalmology 1988
Senior Specialist in Ophthalmology 1996
Master in Satisfactory Longevity 2010

Papers Presented at National Meeting 286
Papers Presented at International Meeting 83

President of the State Court to Evaluate Candidate to 1st grade Specialist 33
President of the State Court to Evaluate Candidate to 1st grade Specialist 43

Researcher activity
Research project 19
Manuscript 23
National post graduate courses received 41
Internal post graduate courses received 15

Teaching
Instructor of the Institute of Medical Sciences 1989
Assistant Professor, Institute of Medical Sciences 1996
Assistant Professor Institute of Medical Sciences 2003.
Lecture in National Courses 15

Awards
Recognition for work of 23 results
Scientific awards, 12 papers
Research and Teaching (two awards of the Cuban Academy of Sciences)
Diploma to the Honor in Higher Education 2010

Scientific Societies Membership 9

Member of ISCO3 – International Committee of Ozone Therapy.

M.Sc. Livan Delgado Roche (CUB)



Age: 28 years

Researcher, Master in Sciences.

He obtained his Bachelor Degree in Pharmaceutical Sciences in the Pharmacy and Food Sciences College in 2007, University of Havana, Cuba. He works as researcher in the Center of Studies for Research and Biological Evaluations, with expertise in the studies on redox environment and its relationship with cardiovascular diseases. In 2010 obtained his Master in Sciences Degree. He is associated researcher of the Center of Molecular Immunology, taking part in one of the most 10 relevant research works. Also, participates as professor of courses on Pharmacology and training in biochemical techniques for redox diagnostic in Cuba and Mexico. Active member of the Cuban Society of Pharmacology. He has participated, as principal author, in 12 national and international congresses and in two of them he obtained the award to the most relevant work. He has been granted by the University of Havana two times for its relevant scientific results. His research results have been published in a total of 33 publications in different national and international journals of high impact factor. Actually he is finishing his experimental works for Ph.D. theses.

Dra. Silvia del Carmen Díaz Llera (CUB)



PERSONAL INFORMATION:

Born: November 1st, 1949

Personal address: 78 St. # 912, Playa, Havana, Cuba. Tel. (537) 23-39-15

Position: - Aux. Professor, Dept. of Pharmacology and Toxicology, Pharmacy and Food Institute, University of Havana, 23th Ave # 21425 entre 214 y 222, La Coronela, La Lisa, Havana, Cuba. Tel. 267 9207 Fax. (537) 260 3894, E-Mail:silvia@ifal.uh.cu, ssllera@infomed.sld.cu

EDUCATION:

- Bachelor on Biological Sciences, Biological Sciences Faculty, University of Habana, Cuba 1972.
- French Language graduated, L'Alliance Française de Cuba, Havana, 1976.
- Russian Language graduated, Training Faculty in Foreign Languages, University of Havana, 1984.
- Ph.D. on Pharmaceutical Sciences, Pharmacy and Food Institute, University of Havana, Cuba, 2000.

She has professional experience in Cell and Molecular Biology, and Genetics and Genetic Toxicology and is expert specialist in Genetic Toxicology of the CECMED (Cuban Center for Control and Evaluation of Drugs). She has presented more than 60 scientific and teaching reports in national and international meetings. She has supervised the research work of numerous first degree students as well as 7 master degree students and one Ph.D. Her research work is focused on the evaluation of the genotoxic and mutagenic properties of chemicals products. She has practical experience in different *in vitro* techniques such as Genetics of *Aspergillus nidulans*, peripheral blood lymphocyte culture, cytogenetics, micronuclei assay, sister chromatid exchanges and chromosomal aberrations as biomarkers of exposure of induced genetic damage, T-cell cloning and human *hprt* system as biomarker of effect. She also has experience in various *in vivo* methodologies such as micronucleus test system in mouse bone marrow, peripheral blood and exfoliated mucous cells (rodents and humans); alkaline single cell gel electrophoresis assay (Comet assay) to detect DNA damage (DNA single strand breaks (frank strand breaks and incomplete excision repair sites), alkali-labile sites, and crosslinking) in eukaryotic cells obtained from *in vitro* and *in vivo* studies induced by chemicals, endogenous or exogenous reactive oxygen species or ozone. The results of her scientific work on genotoxicological evaluation of chemical products, drugs, natural products and therapeutic ozone have been published in peer-reviewed national and international journals. Her work has been awarded in several occasions as the Award "For the Cuban Education", given by the Minister of Education, Dec 22/1990; the Award to the "Scientific Result of Highest Economical Significance" for being participant of the work: "BIOBRAS-16, a new Cuban bioregulator. Studies for its registration and marketing" given by the University of Havana, Jan 31/1997; and a honourable mention in the category of "Result already applied of greater benefits to social developments" given by the University of Havana, Jan 2000. Her Ph.D. thesis was distinguished as outstanding by the Pharmacy and Food Institute and the University of Havana. She is an active member of the Cuban Society of Toxicology and headed Mutagenesis, Teratogenesis and Carcinogenesis Section during seven years (1994-2001).

Dr. Aubrey Clint Folsom (USA)

Professional Experience

2010 to present: World Cancer Centers S.D.E R.L

Founder and President

Established and ran cancer center in Honduras for the treatment of cancer using immunotherapeutic vaccines.



1982 to present: *Folsom Metal Products, Inc., Pelham, AL*

Founder and President / CEO

Founded and led Folsom Metal Products, Inc, Pelham, AL, since its inception in 1982. FMP is an engineering and manufacturing company with a history of innovation in the following areas:

- Medical Devices – Frontier Devices Division develops, manufactures and markets innovative devices for orthopaedic spine surgery and dental implants.
- Equipment for Oil and Gas Exploration – Seal Tech Division designed and manufactured the first Rotating Blow Out Preventer for oil and gas exploration.
- NASA - Seal Tech Space received a letter of commendation from both houses of Congress for re-design of the Space Shuttle Solid Rocket Motor in 1987 after the Challenger Tragedy.

Patents

US Patent 5,888,218	Implant microseal
US Patent 5,782,918	Implant abutment system
US Patent 5,755,807	Implant module unit and rotating seal for prosthetic joint

Honors and Awards

- 1987 *Congressional Recognition from US Senate and House of Representatives for Design work on Space Shuttle*
1987 *Nominated for the Department of Commerce Medal of Technology*
1992 *Petroleum Engineers International Special Meritorious Award for Engineering Innovation.*

Education

- 1970 Birmingham Southern College
Bachelor of Science, Biology

Dr. Eduardo Martín García Villanueva (MEX)

Date of birth: On February 9, 1960.

Place of birth: San Martín Hidalgo, Jalisco

Nationality: Mexican

Age: 52 years

Registered office: LATALCUNGA # 725 Colonia Lindavista.
México, D.F. C.P. 07300

Telephone Office: (55)51-19-44-55

Cell Phone: 044-55-54-36-26-50

E-mail: martin@medicaangelus.com.mx

www.medicaangelus.com.mx



STUDIES OF SPECIALIZATION:

Hospital General de México, S.S.A. Instituto Nacional de la Senectud: Geriatric Medicine. (5/ March- 24 September, 1984)

The American University, Asociación Mexicana de Sexología, A.C Educador. Instituto Mexicano de Sexología: Sex Education and Sexology. (Aug. 1984 / Nov. 1985).

Hospital de Especialidades Centro Médico "La Raza" Instituto Mexicano del Seguro Social Cedula de Urólogo de la S.E.P.: Post-graduate Course in Urology (1 March 1990 – February 28 1994). No. 3153456

Hospital de Oncología Centro Médico Nacional Siglo XXI. Instituto Mexicano del Seguro Social.: Diploma in Urologic Oncology (1 March 1996 – 28 February 1997).

Asociación Mexicana de Ozonoterapia A.C. Ozonoterapia México, S.A. de C.V. Universidad Autónoma de Sinaloa: VIII Training Curse in Ozone Therapy (16-22 September 2007).

Colegio Médico Científico para la Prevención y Tratamiento en Nutrición, Anti-Envejecimiento y Estética A.C.: Diploma in Nutrition, Anti Age Medicine and Aesthetic. (January – November 2009).

Universidad Nacional Autónoma de México: Workshop on Heavy Metals: Accumulation and Elimination by Chelation. 31st August 2010.

Active member of :

Society of Urology Mexican A.C.

Urology Mexican College A.C.

Mexican Association of Ozone Therapy A.C.

Dr. José Germán Medina(VEN)

Address: Urb Macaracuay Street Paramaiboa. Sector J Quinta La Medina Caracas. Phone: 0212-2561768 / Cell 0414-3247621.

- Master in Public Health Scientiarum. Citation Management and Hospital Administration.
- Intermediate and Advanced Courses in Public Health. Citation Management and Hospital Administration.
- Graduate in Orthopedic Surgery.
- Sub-specialization in Surgery of the Spine. Oswestry, England. UK.
- Specializing in Minimally Invasive Surgery of the Spine. Las Vegas. Nevada. USA.
- Specialization in Trauma and Sports Injuries. Leeds. England, UK.
- Professor of the Faculty of Medicine, VCU.
- Head of the Department of Morphological Sciences (Anatomy and Histology), School of Nutrition and Dietetics.
- Faculty of Medicine, UCV.
- Chief of Trauma and Orthopedics Hospital Vargas de Caracas.
- Masters in Healthcare Management for Physicians. IESA MBA. 2003-2004.
- National General Coordinator of Medical Services Dental of INCES, 2009-2011.



Scientific charges:

- Vice-President of the Venezuelan Society of Orthopaedic Surgery and Traumatology, 1997-1999.
- President of the Venezuelan Society of Traumatology and Orthopedics 2004-2006.
- National General Secretary of the Association AO Alumni Switzerland Davos Switzerland Venezuela 1999-2009.
- Founding Member of the Venezuelan Society of Ozone. Secretary General of the SVOT.
- Coordinating multiple national and international scientific events in the area of Public Health.
- Topic Coordinator Public Health in Venezuela. His illness and its treatment policy. National Academy of Medicine 2004.
- Chairman AO Spine in Venezuela from 1994 to 2002 of multiple courses Basic and Advanced Spine Pathology.
- Principal Member of National Advisory Council SVCOT (Venezuelan Society of Orthopaedic Surgery and Traumatology).
- National Coordinating Committee on Sports Injuries and Trauma of SVCOT (Venezuelan Society of Orthopaedic Surgery and Traumatology).
- Lt. Col. (GNB) in retirement.

Research and Teaching

- 154 Medical Exhibition and Conference on Congress and national and international events related to the specialty since 1991 to date.
- 23 published papers on various pathologies inherent to the Specialty and Surgical Treatment of Degenerative and Traumatic Disorders of the Spine. Journal of the UCV.
- National Research Award Dr. Jorge Figarella granted by the Venezuelan Society of Orthopaedic Surgery and Traumatology. Edo Maturin Monagas 1997.
- International Alumni Member and founder of the Group in Venezuela from the AO. Switzerland, 1994.
- Medical Traumatology from 1981 to 2009 Baseball Team Los Leones of Caracas. Book Release: 28 years with The Lions of Caracas and its Manas Secrets.
- Evaluation of Medical Care in a Welfare Service. Performance Analysis. Dr. Carlos Arvelo Military Hospital. Thesis of Master in Public Health. Faculty of Medicine. UCV, 1980.
- National Award for SVCOT 2002. Edo. Falcon for work on odontoid fractures in young patients and their consequences.
- Work in progress on the spine and disc disease in the Venezuelan Indigenous (Yanomami Indians) to be presented in San Francisco California in the Global Spine October 2011.

Award / Decoration

- Multiple awards by the National Executive and National Armed Forces for their outstanding teaching and research such as:
1. Cross Armed Forces in the First and Second Class / 2. Cruz Metropolitan Police in its First and Second Class. / Order Diego de Lozada in its First and Second Class. / 4. Order Francisco de Miranda in the First and Second Class. / 5. Order Ministry of

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Health in the Third Class. / 6. Order of the National Guard in the Second Class./ 7. Honorary Pilot Wing Chest by rescue at Avila SALVAGE Accident Pilot Air National Guard in 1989. / 8. Order Jose Antonio Paez in his only Class.

Dr. Esteban González Sánchez(CUB)



Medical Doctor (Havana, Cuba, 1977). M.D. validate in Spain (1997).

Specialist in Internal Medicine in Cuba (1985).

Tumor board member and Pharmacotherapeutic committee chairman in the Hospital Dr. Gustavo Lima Aldereguía, Cienfuegos, Cuba.

Regional scientific committee member. Professor of Internal Medicine. Professor of Semiology and propaedeutic and chief of the medical staff in the Faculty of Medicine, Cienfuegos, Cuba (1985-1998).

Professional experience in different countries.

Member of AEPROMO and of the editorial board of the Spanish Journal of Ozone Therapy.

Current position:

Director of Clinicanaria International, specialized center in ozone therapy, Las Palmas (Spain).

Dra. Mercedes Hernández Avilés (SPA)

Current address: San Millán, 2-3, Chinchón, Madrid (Spain).

Phone: (34) 91 894 04 68 / 667 52 24 40

E-mail: dramp@telefonica.net

bertaviles@gmail.com



ACADEMIC BACKGROUND:

Bachelor's degree in Veterinary Medicine, issued by the Veterinary Faculty of the Complutense University of Madrid in 1985.

Languages: French (translated; spoken and written at mid level). Studies performed during high school.

Continuing training courses in: Endocrinology, Surgery, Ethology, Dermatology, Leishmaniasis, Gastroenterology, Hematology, Ozone Therapy and related fields over the last 27 years.

WORK EXPERIENCE:

Founder and Head of the veterinary clinic DRAMP since 1985.

Specializations: Internal Medicine, Soft Tissue Surgery, Ethology and Ozone Therapy in dogs and cats.

Dr. F. Javier Hidalgo Tallón (SPA).

Bachelor in Medicine and Surgery at the University of Granada.
Specialist in Estomatology at the Complutense University of Madrid
Bachelor in Dentistry at the University of Granada.
Doctor in Medicine (Neurosciences) at the University of Granada.



Postgraduate training in the Department of Orofacial Pain at the University of Kentucky. Dr. J. P. Okesson., April 1998.
Diploma in Anti-Aging Medicine at the University of Seville.

Member of the Research Group of the Junta de Andalucía on studies on Headaches, Fibromyalgia and Psychotropics.
Postgraduate Training. Master E.S.O.R.I.B. (European School of Oral Rehabilitation and Biomaterials) in Implantology.
Postgraduate Training Master E.S.O.R.I.B. in Occlusion and Oral Rehabilitation.
Postgraduate training in the Ozone Research Center. Havana (Cuba), 2002.

Member of the Spanish Society of Pain – SED
Member of the Institute of Neurosciences at the University of Granada
Member of the Spanish Society of Craneomandibular Dysfunction and Orofacial Pain, SEDCYDO
Member of A.E.P:R.O.M.O.
Member of S.E.O.T.

Publications in:

Progress Neuropsychopharmacol Biol Psychiatry, Eur J Neurol, Rheumatol Int, Pain Medicine, J Headache Pain, Pharmacopsychiatry, Head and Face Medicine, Rev Soc Esp del Dolor, Clin Exp Rheumatol, Eur Journal of Pain, J Sex Medicine, Rheumatology.

Dr. Fernando Kirchner van Gelderen, M.D.,(SPA)



Specialist in Orthopedics and Traumatology, Microsurgery and Reimplantes, teaching authorized UBA andUAB Collegiate (Col Med Barcelona) 25837, German passport: 3551284181.

-Assistant Professor of Anatomy, Faculty of Medicine (UBA), 1975.

-Director of the laboratory apparatus locomotive of the first Chair of Anatomy Normal, Faculty of medicine, Univ. of Buenos Aires, 1976-1981.

-Director of the laboratory of Anatomy of the apparatus locomotive, 1979 until 1982.

-Secretary of Commission of investigation of Soc.Argentina surgery of the hand, (nov.1981)

-Director of the school of Anatomy "Dr. Elbio p. Cozzi" since January 1984-1992.

-"Anatomical research on the irrigation of the peripheral nerve" Rapporteur "in microsurgery International Symposium" 7 to October 11, 1984.

-Director of the "Exhibit anatomical on the nerve peripheral in the adult and in specimens fetal" at the symposium from 7 to 8 October in Buenos Aires, 1984.

-Concurrent to the University Klinikni Center Ljubljana in Yugoslavia during 3 months, September. 1986.

-Concurrent German society of plastic surgery (Dr. Olivari), September 1986.

-Obtaining Prize nullifies giving society American of surgery of the hand, to the best job in the world (Emmanuel Kaplan Price). Baltimore (Maryland, USA), 14-17 September 1988.

-Member honorary society Spanish of the surgery of the hand.

-Director of the exhibition of the anatomy of the Carpus, the Congress International Hispano-Italiano of surgery of the hand, 1989.

-Assistance to the Hospital for Special Surgery, New York, February 2000 "Advance Knee Surgery".

-Participation in the "23 International Course for Percutaneous endoscope Spinal Surgery and Minimal Invasive Techniques", Zurich, 27-28/1 2005.

-7 Th UK Hands - On Cadaver Workshop on Interventional Pain Producedures - University College London. 27-28/6 2008.

-Founding member of the Spanish Association of medical professionals in ozone therapy - AEPROMO, October 2008.

-Director in the first days of ozone therapy of the Maresme, held in CALDES D'ESTRAC. November 15, 2008.

-Participation in the course "Advances in treatment of vertebral fractures", approaches minimally invasive, Madrid, 27-28/3 2009.

-Participation in international training in ozone therapy course, held in Havana, Cuba, during the 25th to 29th May 2009.

-Member of the Board of Directors of AEPROMO, as Chairman of the Committee on research and teaching (in Office)

- "I ozonated Platelet-Rich Plasma seminar", in the program of continuous training, Valencia-may-2009.

-Participation as a speaker at the International Congress "New horizons for the ozone", Pontevedra, Spain, 5-6/6 2009.

-Teacher of the practical Conference of the Internat.Conference "New horizons for the ozone", Pontevedra, Spain, 5-6/6 2009.

-Seminar "Ozonizada Platelet-Rich Plasma" (PRP-03), Col. Médicos de Valencia, Spain, 3/10 2009.

-Professor in different course of ozone, organized by Aepromo, and the World Federation of O-Ozonoterapia

-Director and Professor, theoretical and practical course of O3 and Infilt. Ecoguided Traumat, Madrid, 10-11/6 2011.

-"Barcelona Knee Symposium - 7th Barcelona Conference on knee", 28-29/10 Barcelona 2010.

-Medical performance with ozone therapy and Plasma rich in proteins in outpatient of Gabinet Medic Maresme, Mataró, since the year 2000, and in operating room since 2007 in médicos-quirúrgicos centres in Catalonia.

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-Application of Plasma rich in protein Ozonizado in spine (cervical and lumbar) in the operating room with technique of discolisis for the treatment of Herniated discs from December 2010.

Dr. Heinz Konrad (BRA)



Physician, graduated from Santa Casa School of Medicine in Sao Paulo, Brazil, in 1972 and also studied at St. Mary's Hospital and Medical Center in San Francisco, California, USA.

Residency in General Surgery.

Residency in Gynecology and Obstetrics.

Introduced ozone therapy into Brazil in 1975.

During 11 years, member of Pain Clinic of Santa Casa de Sao Paulo Hospital.

Visiting Doctor at the Pain Clinic of the Cook County Hospital, Chicago, USA.

Visiting Doctor at the Pain Clinic of the Cleveland Clinic Foundation, Cleveland, USA.

Title of Master in Medicine by Santa Casa School of Medicine in Sao Paulo, Brazil.

Member of IOA – International Ozone Association.

Member of German Medical Society for Ozone Therapy.

Founding member of ABOZ – Brazilian Ozone Therapy Association.

Member of ISCO3 – International Committee of Ozone Therapy.

Dr. Juan López-Laserna Ruiz (SPA)

Avdal. Gran Capitán, 4.5º-2. Córdoba. 14008. Spain.
957475952-957480018. fax.957490049. lasernar@telefonica.net
www.juanlopezlaserna.es



Experience :

1977-1978 House Physician. Teniente Coronel Noreña. Hospital. Córdoba.
1978-1981 Virgen de La Candelaria Hospital. Tenerife. Resident house Physician in the Orthopaedics Department.
1980. Member of the Service Commission in Reina Sofia University Hospital. Córdoba.
1981-1984 Puerto de La Cruz. Tenerife. Chief of the Orthopaedics Surgery Department.
1982-83 Orthopaedics for the Velásquez-Canarias Basketball
1982-1984 Team Orthopaedics Surgery FREMAP Mutual Society Tenerife
1984-1992. Reina Sofia University Hospital .Córdoba. Specialist in Orthopaedic Surgery Department. Leave on 1992
1992-2012 Chief of the Foot and Ankle Unit .San Juan de Dios Hospital.Córdoba.
1992-1998 Chief of Orthopaedic Surgery in the Madin Mutual Society.
1994-1998 Chief of Orthopaedic Surgery in the Cyclops Mutual Córdoba.

Associations:

Member of SECOT.
Vocal of The Spanish Society for Medicine and Surgery of the Foot and Ankle (up to 2009).
Founder Member of The Spanish Society of Hip Surgery.

Member of the Spanish Biomechanical Society.

Member of SATO.

Member of AEPROMO

Member of Editorial Board of the Journal of the SEMCPT

Conferences and Courses:

Secretary of the XV Congress of the AEMCPT 1992.
Organizer of 6 courses of infiltration techniques Locomotive.
Course director of I Live Surgery Foot and Ankle. 2004.
Course Director of Foot and Ankle pathology. College of Physicians of Córdoba, 2005.
President of the 28 Congress Hispano-American of the SEMCPT.Cordoba, 2006.
Director of I Course Live Surgery of the Foot. 2009.
Director of I Course Protocol Clinical of Forefoot Pathology. Cordoba, 2010.
President of Congress SIBB 2011.

Publications:

Chapters in books (Biomechanics and Foot Surgery, SECOT Monograph of the foot and ankle, forefoot pathology, etc).Director of the 4 DVD collection techniques and Ankle Surgery of the foot.Director of DVD Forefoot surgery

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(Almirall).Speaker at numerous Congress SEMCPT, SIBB, ACEOOT, etc.More than 40 communications in conferences and journals.

Dr. Nurettin Lüleci (TUR)

EMSEY Hospital,Istanbul,Turkey
GSM: + (90) 505 7470878. Work:+(90) 216 646 1 646
Call Center: 444 25 99

Place and Date of Birth: Izmit, Turkey, 1956
Sex: Male
Marital Status: Married
Social: Head of Medical Ozone Therapy Association (MOTDER). Turkey.



Position

2012 -Present: Head of Anesthesiology and Reanimation Department. Director of Algology Clinic.EMSEY Hospital Istanbul, Turkey.
2008-Professor of Anesthesiology and Reanimation Department. Maltepe University Medical School. Istanbul, Turkey.
-Director of Algology ClinicAnesthesiology and Reanimation. DepartmentKartal Koşuyolu Training and Research Hospital.Istanbul, Turkey
-Associate Professor- Celal Bayar University Medical School. Anesthesiology and Reanimation Department. Manisa, Turkey.
1999-Asistant Professor- Celal Bayar University Medical School. Anesthesiology and Reanimation Department. Manisa, Turkey.

Education

-Ege University Medical School Algology Clinic.Izmir, Turkey.
-Karadeniz Technical University Medical School. Anesthesiology and Reanimation Department, Trabzon,Turkey.
-Ataturk University. Medical School. Erzurum, Turkey.

Main Research/ Teaching Areas

Pain management: Treatment of the chronic pain, Treatment of the spinal pain, Treatment of the facet joint pain, Treatment of the degenerative lumbar spine stenosis.
Intradiscal therapies: Percutaneous laser disc decompression, Percutaneous ozone disc decompression
Ozone Therapies.In pain therapy.

Dr. Francisco José Matín Florido (SPA)

Masteraesthetic medicine.

Expertise in anti-aging medicine from the University of Seville.

Expertise in Ozone Therapy from the University of Seville.

Director of the clinic Medicentro in Huelva, Spain.

Coordinator of Ozone Therapy courses at the University of Seville.

Ex-President of ACEOOT.

E-mail: franciscomartin@grupomedicentro.com



Congress Presentation:

- Presentation in Ozone Therapy International Congress since 2005
- Professor Ozone Therapy Courses since 2006
- Presentacion in Aesthetic Medicine Congress since 1992
- Presentation in Anti-aging Medicine Congress since 2007

Research:

- Ozone therapy inthe intervertebral disc. University of Seville.
- IDI / O₃. University of Seville.

Papers:

-
- "Lipid profile and dietary habits in an elderly rural population in the southern Spain: The Sierra de Huelva study. *Grasas y Aceites* 60:284-290, 2009.

Dr. Gregorio Martínez-Sánchez (CUB)



Occupation: Senior Researcher

Office Address: Medinat srl. Via Fazioli 22, Camerano 60021, Ancona, Italy.

Telephones: +39 339 5372953 Fax. +39 071731928 E-Mail: gregorcuba@yahoo.it

Colleague Degree: Pharmaceutical Sciences, Honorific Graduate with Gold Stamp of the Pharmacy and Foods College, Havana University, 1990. Master in Sciences, Pharmacy and Foods College, Havana University, 1998. Ph. D. in Pharmacy 2001 with honors, Havana University.

Scientific Degree: Senior Researcher

He has participated in 27 career related to his specialty with outstanding results. He has presented 95 scientific contributions in 75 national and international congress. He has sent 24 scientific reports to the Food and Drug Administration Office. He has been tutor of 19 Diploma Projects for Bachelor Degree, 8 for Master degree and 5 for Ph.D. degree. He has 136 scientific papers: 46 as abstract, 90 as extending manuscripts in international journals, 1 multimedia and 6 books. He was rewarded with the Havana University Annual Premium in 1995 and 1996 (Greater Economic Contribution) and in 2001 and 2002, 2005 (Human Health Contribution), 2006, 2008 (Top researcher). Active member of the Cuban Society of Pharmacology, International Society of Pharmacology, associated to the Cuban Toxicology Society, Society for Free Radical Biology and Medicine (a constituent member of the International Society for Free Radical Research), AEPROMO and ISCO3. He has worked in the different research programs (Drugs Develop, Drugs from Medicinal Plants, Drug from Biotechnology), participating as technical manager in pharmacological and toxicological evaluations of many drugs, cosmetic and pesticides as brasinoestroids and monoclonal antibodies. He has been awarded in scientific events including a special mention and relevant prize (1996, 1998, 1999, 2000) in the National Forum of Science and Technology. He obtained the Counterfeitors "Forgers of the Future" in 1997, 2000 and 2002. The Cuban Academy of Sciences (ACC) granted the Dr. Gregorio with the Commemorative Currency "XXX Anniversary" as recognition of the scientific results. In 1999, 2002, 2004-2006, the ACC granted him a yearly prize.

Their research activity is centered in the study of the antioxidant effects of drugs in *in vitro* and *in vivo* systems, the search of its therapeutic applications and the implementation of clinical diagnostic biomarker of redox balance. It possesses theoretical experience in the field of the oxidative stress (Lectures in Cuba, Italy, Venezuela, Germany and Chile), and has technical experience in the study of the *redox status* at the level of: chemical reactions, cells and organisms. He spends a post doctoral training in Univ. of Milan, Italy (2000), in the Center for Research of Antioxidant Therapies (Humboldt grant), Germany (2004)

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and in the European Center of Oncology (Italy, (2006). Prize "Top Scientist 2008" by International Biographical Centre of Cambridge. Professor in charge for the curse "Pharmacology of the Oxidative Stress" by the Univ. of Politecnica della Marche (2004-2011).

Dr. Nabil Mawsouf (EGY)



- Professor, Department of Anesthetics, ICU and Pain Management, National Cancer Institute, Cairo University, Egypt.
- Head of Ozone Therapy Unit (For Treatment, Training and Research), National Cancer Institute, Cairo University, Egypt.
- Ozone Therapy Consultant, Military Rehabilitation Center, Cairo Egypt.
- Ozone Therapy Consultant, Naval Research Institute, Alexandria Egypt.
- Ozone Therapy Consultant, Sultanate of Oman.
- Consultant and Referee for evaluation of medical researches and scientific papers for World Health Organization (WHO) in the field of Pain Management and Complementary Medicine.
- Chairman of the Egyptian Medical Society for Ozone Therapy and Complementary medicine.
- Vice President of The International Scientific Committee of Ozone Therapy (ISCO3) - Spain.
- Vice President of Asiatic-European association of ozone therapists and manufacturers of equipment for ozone therapy.
- Vice President of International Medical Ozone Federation (IMEOF).
- Vice President of the Arab Society of Complementary Medicine.
- One of the pioneer doctors in Ozone Therapy in Egypt, and was able to get the approval of Ozone Therapy as a line of treatment by the Ministry of Health in Egypt in December 1999.
- Member of Spanish Association of Medical Professionals in Ozone Therapy (AEPROMO)and International Ozone Association (IOA) and German Medical Society for the Use of Ozone in Prevention and Therapy and The European Cooperation of Ozone in Medicine Societies.
- One of the pioneer doctors in the Pain Management speciality in Egypt since 1981.
- Member of the International Association for the Study of Pain (USA), member of Middle East Society for the study of Pain and member of the Egyptian Society for the Study of Pain.
- Accomplished many researches in the field of Pain Management and Ozone Therapy.
- Supervised many Doctor's and Master's and Doctors Degrees in the field of Pain Management and Ozone Therapy.
- Author of one book in pain management (Pain) written in Arabic language.
- Expert in Acupuncture, Cold Laser and Electrotherapy uses in pain management.

Dr. Cakir Ruhi (TUR)

Place and Date of Birth: Istanbul, Turkey April 11, 1959

Medical Doctor. Istanbul / Turkey(1984)

Pediatrics Istanbul / Turkey(1991).

Family Medicine Istanbul / Turkey(1995)



Has worked in USA, Germany and Russia for various fellowship programs

Has been lecturing and teaching ozone therapies in several countries.

Conducting clinical trials on ozone therapies

Founder and director of Mediozon Clinics

Founder and the director of Eser Medical Health Services

Languages: English, German and Turkish

Founding member Turkish Ozone Associations

Member of the International Scientific Committee of Ozonetherapy (ISCO3) (www.isco3.org).

Dr. Sergey Peretyagin(RUS)



Date and Place of Birth: April 5, 1946, Kirov, Russia.

Professional Address: Nizhny Novgorod Scientific Research Institute of traumatology and orthopedics, Head, department of Experimental Medicine, 603155, Nizhny Novgorod, Russia

Phone: (831)436-25-31 Fax: (831)436-05-91 E-mail: psp_aro@mail.ru

CITIZENSHIP: Russia

Education and Degrees:

1991: Dr. Medicine Sci.

1976: PhD.

1998, 2004: Specialization for traumatology and orthopedics

1964-1970: Physician, Pediatric Faculty of Gorky State Medical Institute, Russia

Academic rank: Professor (2004)

Position:

From 1997- Head department of Experimental Medicine 1994-1997- Vice-Head Doctor of Nizhny Novgorod

Diagnostic Medical Center for scientific and educational work

1987-1993- Head of the Central Scientific Research Laboratory of Nizhny Novgorod State Medical Academy.

1977-1987- High Research Assistant, Head of Department of the Central Scientific Research Laboratory of Nizhny Novgorod State Medical Academy.

1974-1977- Assistant of the course of anaesthesiology of the General Surgery Department, Medical Faculty of Mordovia State University.

1972-1974- Service in Soviet Army, Doctor.

1970-1972- Doctor-Ordinator of Burn Center of Gorky Institute of traumatology and orthopedics.

Professional Memberships and Service:

Member, International Academy of the authors of scientific of discovery and inventions.

Member, European Academy of Natural Sciences.

Member, Problem Committee "Thermal Injury" in Scientific Council of Russian Health Protection Ministry.

Member, Special Dissertation Council D 212.117.08 of Mordovia State University.

President of Russian Ozone Association.

Research Area:

Main theme: Pathogenesis, Clinic, Treatment of Burn Disease; Using Ozone and of the Active Form of Oxygen.

TEACHING EXPERIENCE: From 1992 Regular organization of Conference "Ozone in Biology and Medicine" (8)

From 1994: Organization of studying courses "Basis of Ozonotherapy".

AWARDS AND GRANTS:

Abstract Book

7th - 9th June, 2012. Complutense University of Madrid, Spain.

Dr. Roberto Quintero Mariño(SPA)



Lawyer in Colombia (1973) International Relations Diplomae (1981) and Political Sciences Doctor in France (1982). Has been judge, district attorney, and attorney at law. University and Post Graduate Professor in Colombia. United Nations staff member for 22 years. Has worked in Africa, America, Asia and Europe. Author of several books on history, political assessments and papers on international law. Author of "Ozonotherapy and Legislation: Towards a global assessment of comparative law", the only existing research on the legal situation of the ozone in the world.

Currently Legal adviser of the Spanish Association of Medical Professionals in Ozonotherapy (AEPROMO, www.aepromo.org), International Medical Ozone Federation (IMEOF, www.imeof.org), and International Scientific Committee of Ozonotherapy (ISCO3) (www.isco3.org).

Dr. Susanne Rodekohr

Profession: Physician

Nationality: German

Birthday: 24th of February 1963

Specialties: Ozone Therapy, Acupuncture, Homeopathy, Homotoxicology

Institution: Private Practice

Address: Zamora 39 A, Col. Condesa, 06140 Mexico City, Mexico, susannerodekohr@mac.com



2002 – 2011 Numerous courses on ozone therapy and the practical application of ozone in private practice.

2002 - 2011 Professor at the Iberoamerican University UIA, Mexico, adjunct professor of acupuncture and homeopathy.

2000 Specialty in Homeopathy, Mexico, graduated with high honors, University of Polytechnic Institute.

1999 Diploma: Traditional Chinese Herbal Medicine, Mexico, graduated with high honors.

1995 – 1998, Several courses on acupuncture in Germany and Italy and specialization in acupuncture in Mexico.

1997 Degree of Doctor of Medicine

1986 - 1994 Physician, Berlin, Freie Universität Berlin, Germany

1983 - 1986 Federally certified nurse, Germany

Other activities:

Several semester of study of Veterinary medicine UNAM, Mexico, (Universidad Autónoma de México)

President, founding member and professor at the Mexican Institute for Complementary Veterinary Medicine IMM VetCom A.C. (Veterinary Acupuncture, Homeopathy, Homotoxicology, Ozone Therapy, Bach Flowers)

Multiple publications and participation in national and international congresses in Veterinary Complementary Medicine

1998 to date: private practice using complementary human medicine and complementary veterinary medicine.

Dra. Adriana Schwartz Tapia (SPA)



Medical Doctor. Rusia (1980)

- Gynecologist - obstetric. Rusia. (1983).
- Recognized as Medical Surgeon in Chile (1988), Spain (1999) and Colombia (2008).
- Diploma in Traditional Medicine in China (2000) and Homeopathy (2009).
- Has worked in Africa, America, Asia and Europe with different intergovernmental agencies and UN.
- Founder and director of the Clinic Fiorela - Pain Therapy Center, Madrid
- Founder Clinical Institute of Investigations Fiorela Honduras
- Languages: Spanish, English, French, Portuguese and Russian
- Founding member and President of the Spanish Association of Medical Professionals in Ozonotherapy – AEPROMO
- President of the International Medical Ozone Federation (IMEOF) (www.imeof.org).
- Scientific Secretary of the International Scientific Committee of Ozonotherapy (ISCO3) (www.isco3.org).
- Professor of AEPROMO.

Dr. Luis David Suárez Rodríguez (MEX)



Studies

Medical Specialties

Acupuncture and Physiotherapy. UAM Iztapalapa RFP 4991164.
Anaesthesiology. UNAM. IMSS CMN La Raza
Bachelor degree Physician - Chirurgic. College of Medicine, UNAM. RFP 3664875

Experience

General manager.	Private practice of Integrative Medicine (acupuncture, ozone, neural therapy, hyperbaric oxygen)	2006- 2011
Centro de Medicina Integrativa SANAR SC	Private practice of General medicine and acupuncture	2002-2006
Clinica Omega para la Atención Integral del Diabético		

Publications/presentations

Treatment of acute viral respiratory tract infections with oxygen-ozone minor autohemotherapy. Case reports.	CNIC, Havana, Cuba	28 /06 – 1/07, 2010
Ozone Therapy. Health is Beauty Seminar	Mayo Clinic Wellness Center, Rochester USA	October 2009
Uso de punciones en el tratamiento de enfermedades entre la población Maya de Quintana Roo en la Actualidad	3er Anuario de Etnomedicina y Estudios de Plantas Medicinales de la UAM.	2008
Assessment of the Vascular Effects of PC6 (Neiguan) Using the Second Derivative of the Finger Photoplethysmogram in Healthy and Hypertensive Subjects.	Am J Chin Med. 2007;35(3):427-36	2007

Professional experience

Mild Hyperbaric Oxygen Therapy. Hands on Seminar, ACAM	June 2011
Updates in Ozone Therapy. Vienna, Austria. Ozonozan	October 2010
Oxidative Therapies Seminar. Autoimmune diseases General Session. ACAM	November 2010
Pain manage using ozone. AMOZON, Culiacán, México, Level I y II	2009
Training Program in ozone therapy. AMOZON. Basic, medium an high level	February 2008

Affiliations

American Conference for the Advancement of Medicine (ACAM)	Since 2009
Mexican Association of Ozone therapy (AMOZON)	Since 2008

Dra. Renate Viebahn-Hänsler(GER)



Bioquímica y Farmaceuta. Secretaria General de la Sociedad Médica Alemana para el Uso del Ozono en Prevención y Terapia y de la Cooperación Europea de Sociedades del Ozono Médico.

Bio-Chemistry & Pharmacology. General Secretary of the German Medical Society for the Use of Ozone in Prevention and Therapy and the European Cooperation of the Medical Ozone Societies.

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