Necrotizing fasciitis. ¿How fast can it develop?

A 76-year-old woman with heart failure history and with no other relevant condition presented to the emergency department for evaluation of 6 hours of pain in right upper limb associated with small vesicles without systemic symptoms.

On physical examination, serous content vesicles with erythematous base, edema, crepitus and intense pain on palpation were identified on distal right upper extremity. No systemic inflammatory response (white blood cells 9750 mm3, lactate 1.7 mmol/L and c-reactive protein 4.6 mg/dL) or hemodynamic instability (blood pressure 140/75 mmHg and heart rate 82 beats per minute) were reported.

Antibiotic coverage was started with oxacillin 2 gr/4h. On the first 6 hours it progressed rapidly (Figure 1) with the presence of fever and ecchymosis, suspecting necrotizing fasciitis, vancomycin 15mg/kg and piperacillin tazobactam 4.5 gr dose were indicated. Emergency surgical debridement was carried out and wide necrotic tissue were identified on forearm muscles. Leukocytosis (white blood cells 15.000 mm3), positive c-reactive protein of 15mg/dL and negative blood cultures were reported. Despite prompt treatment 48 hours later the patient dies.

Necrotizing fasciitis is a deep tissue infection and it's a surgical emergency, where early diagnosis and treatment are essential[1,2]. Diabetes, cirrhosis and trauma are well known risk factors[3]. Findings like disproportionate pain, bullae or ecchymosis, tense edema, subcutaneous emphysema, systemic toxicity and rapid progression should rise suspicious about this entity[4].

The definitive diagnosis can only be made by surgical exploration and should not be delayed by diagnostic studies[1] like magnetic resonance, although inflammatory infiltration of the deep fascia and subcutaneous air could be identified, which is very specific on early stages. Despite early treatment mortality rises upon 30%, mainly associated with dissemination, comorbidities, extreme ages and delay in treatment[2].

REFERENCES

1. Stevens DL, Bisno AL, Chambers HF, Dellinger EP, Goldstein EJ, Gorbach SL, et al. Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the Infectious Diseases Society of America. Clin Infect Dis. 2014;59(2):e10-e52.
2. Clebak KT, Malone MA. Skin Infections. Prim Care Clin Office Pract. 2018;45(3):433-54.
3. Stevens DL, Bryant AE. Necrotizing soft-tissue infections. N Engl J Med. 2017;377(23):2253-65.
4. Garcia NM, Cai J. Aggressive Soft Tissue Infections. Surg Clin N Am. 2018.

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DIAGNOSIS

Necrotizing fascitis

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