



Necrotizing Fasciitis of the Breast: Report of A Case

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Abstract

Necrotizing fasciitis is a serious soft tissue infection that causes necrosis of the subcutaneous tissues and the muscle fascia. It is associated with a high mortality rate of around 25%. Necrotizing fasciitis of the breast is a rare entity. It is a rapidly progressive life-threatening condition which can lead to sepsis with multiple organ failure.

We report the case of necrotizing fasciitis of the right breast in a 70-year-old diabetic woman and we describe as well as the clinical particularities and the results treatments for this rare form.

Keywords: *Necrotizing fasciitis; enterococci spp; the breast*

Introduction

Necrotising fasciitis (NF) is a severe infection of the skin and subcutaneous tissue extending to the deep fascia, responsible for necrosis [1].

The rapid extension of necrosis is related to thrombosis of vessels in the fascia territories [2].

Mammary localization is exceptional and is often confused with a breast abscess or cellulitis; it is often secondary to breast surgery and primary forms are rarer. The management of this form is associated with cosmetic damage and the delay in diagnosis can be fatal. Treatment is based on wide excision of the necrotic tissue and prescription of broad-spectrum antibiotics [3].

We report the outcome of a primary necrotizing fasciitis of the right breast in a 70-year-old woman.

Case Report

We report the case of a 70-year-old postmenopausal woman with the following history Neoplasia of the cervix treated by radio-chemotherapy 16 years ago; diabetic on oral antidiabetics and hypertensive for 24 years who consulted the emergency room for right mastodynia associated with a fever of 39 C evolving for 3 days without any triggering factor.

Questioning revealed the appearance of inflammatory signs in the right breast at the beginning, followed rapidly by the formation of phlyctenes. Initial examination revealed purpuric lesions covering the entire right breast with patches of necrosis and bullae with haemorrhagic content in the lower quadrant.

The examination of the left breast was normal.

The patient's laboratory results revealed a white blood cell count of 14380/mm³ with an absolute neutrophil count of 10627/mm³. The C-reactive protein was 333 mg/l.

Mammary ultrasound showed right mastitis associated with homolateral axillary adenopathy with no evidence of suspicious lesions. Mammography was not performed immediately in view of the significant mastodynia. Thus, the diagnosis of FN was strongly suspected in the absence of abscesses and suspicious lesions on ultrasound.

The patient was put on a broad-spectrum probabilistic antibiotic therapy combining betalactamine-clavulanic acid 2g x 3 per day and gentamicin 160 mg per day. The extension of the necrosis requires an emergency mastectomy.

Microbiological analysis of the pus revealed enterococci spp susceptible strain to amoxicillin.

The anatomopathological examination concluded to an associated dermal and hypodermic necrosis to necrosis of the glandular tissue and did not put in evidence of suspicious.



Figure 1: Right breast appearance before surgery showing extension of necrosis to skin and mammary gland



Figure 2: post operative picture

Discussion

Since 2001, a consensus conference has proposed a classification of cutaneous infections according to the severity and depth of involvement. Thus, it defined: simple bacterial dermohypodermatitis or erysipelas, with hypodermic involvement of variable depth but which is not accompanied by necrosis and does not reach the deep fascias. The treatment of this form is medical; necrotizing cellulitis, which involves necrosis of the connective tissue and adipose tissue but without involvement of the deep fascia and is treated surgically; necrotizing fasciitis, in which the necrosis reaches and exceeds the deep fascia, with more or less extensive involvement of the intermuscular fascia and muscles. This is the form we describe in this case report.

The germ involved is often group A beta-haemolytic streptococcus and is a life-threatening emergency. The risk factors that have been reported in the NF are diabetes, alcohol consumption, haemopathy and cancer, use of non-steroidal anti-inflammatory drugs or immunosuppressive therapy and age over 65 years[5,6]. The diagnosis of FN is primarily clinical and is often confused with breast abscesses or cellulitis [3]. It should be suspected on the basis of intense pain, the presence of phlyctenes, rapidly spreading necrotic lesions and the perception of crepitus under the skin on palpation.

However, it is not uncommon to observe subacute forms, especially in diabetics, where the pain may be less marked and the skin manifestations are falsely reassuring and often associated with more severe deep lesions [4].

The diagnosis of FN in our patient was suspected due to the clinical background, the hyperalgesic character and the striking skin manifestations. The absence of palpable collections or nodules and the initial ultrasound findings were not in favour of a neoplastic origin or a breast abscess.

In deceptive forms, imaging is important. Magnetic resonance imaging is the most effective technique for identifying soft tissue abnormalities and their distribution [2].

The treatment of necrotizing fasciitis is based on early surgery to excise the necrotic tissue to prevent the lesions from spreading.

Early surgery is a key prognostic factor and daily monitoring for the first few days is necessary.

Conclusion

The mammary localization of necrotizing fasciitis is rare and poses the problem of delayed diagnosis because it is often mistaken for cellulitis or an abscess with cellulitis or an abscess, sometimes because of the delayed appearance of cutaneous signs.

A delay in diagnosis can be responsible for complications sometimes involving the vital prognosis.

The initial severity of the septic state, age and underlying pathology are risk factors for mortality. The precocity of the surgical procedure in the first 24 hours following admission is a major determinant of the prognosis. Multidisciplinary management can dramatically improve outcomes.

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