

Idiopathic gangrene of the breast

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Abstract

An 88-year-old lady presented with idiopathic sepsis and ischaemic gangrene of the right breast. Group-A bacteraemia was identified on blood culture. Breast biopsies taken were negative for malignancy. The patient was treated with intravenous antibiotics and fluid resuscitation. Subsequent wound care and continuation of oral antibiotics led to complete recovery.

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Key Clinical Message: Gangrene of the breast is a rare condition. It is usually unilateral and can be idiopathic or secondary to puerperal sepsis, trauma and/ or diabetes. Treatment involve antibiotics, wound care and resuscitation.

Q: What is this condition?

A: Idiopathic gangrene of the breast. This 88-year-old lady presented with idiopathic sepsis and ischaemic gangrene of the right breast (Fig. 1). Group-A bacteraemia was identified on blood culture. Breast ultrasound scan showed an area of centrally located attenuation. The biopsies taken were negative for malignancy. The patient was treated with intravenous antibiotics and fluid resuscitation.

Once it is well-demarcated, the gangrenous patch was removed and the wound cleaned, debrided and treated with silver nitrate. Subsequent wound care and continuation of oral antibiotics led to complete recovery (Fig. 2).

The course of the disease begins with skin changes similar to ecchymosis and abscess, which then progresses to dermal gangrene and eventual eschar formation over 2-5 days¹. Involvement of the underlying fascia and subcutaneous tissue may also occur, presenting as necrotising fasciitis². This could be fatal with mortality rates reported between 8 and 70%². Therefore, prompt diagnosis and early aggressive treatment is paramount. The mainstay of surgical treatment includes prompt wound debridement, necrosectomy, fasciotomy, and mastectomy, if needed².

Authors and their contributions:

1. Dr. Meenakshi Deivanayagam contributed to this work by writing the manuscript, obtaining consent and reviewing the final version.
2. Mr. Sirwan Hadad contributed to this work by revising the manuscript, organising clinical photography and reviewing the final version.

References

1. Agarwal S, Jayant K, Agarwal R. Breast gangrene: a rare source of severe sepsis. BMJ Case Rep. 2014;2014: bcr2013203467.
2. Yaji P, Bhat B, Harish E. Primary necrotising fasciitis of the breast: Case report and brief review of literature. J Clin Diagn Res. 2014;8(7):ND01–ND02. Figure Legends: Figure 1: Ischaemic gangrene of right breast following group A bacteraemia. Figure 2: Resolved ischaemic gangrene of right breast after four months.



