

Antepartum Mastitis: A Case Series

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Background

Antepartum mastitis is a rare pregnancy complication involving inflammation of the mammary parenchyma that may progress to abscess formation. Typically, mastitis is observed in the puerperium and related to lactation, occurring in approximately 1- 9% of post-partum women [1]. However, due to the paucity of case reports, the prevalence of antepartum mastitis is unknown [2]. We report two cases of mastitis in multigravida women.

CASE 1

A 32-year-old G3P1011 presented septic with a tender and swollen right breast at 29 weeks gestation of an IVF pregnancy. Her background was significant for a BMI of 35, insulin- dependent gestational diabetes, and a history of delivering a large birthweight baby (4.5kg) via caesarean section. She did not have a personal nor family history of breast cancer. A breast ultrasound revealed hyperaemia of the right breast without an underlying collection or mass, indicating cellulitis. A swab of the area grew methicillin-sensitive *Staphylococcus aureus*. She was treated with a course of IV and oral flucloxacillin. She progressed well and delivered a healthy infant at term.

CASE 2

A 35-year-old G2P1001 presented with an un-booked pregnancy with spontaneous onset of labour at approximately 30 weeks gestation of a foetal death in utero (FDIU). She progressed to a spontaneous vaginal birth. She was noted to be septic with chorioamnionitis as well as bilateral breast ulcers with surround hyperaemia. Her breast ulceration had worsened over 2 months and was being treated with a short course of oral antibiotic through her GP with minimal effect. A breast ultrasound was in keeping with cellulitis without evidence of underlying collections or masses. She has no personal nor family history of breast cancer. A swab of the area revealed polymicrobial growth. She was treated with a course of empiric IV then oral antibiotics. She recovered well clinically with clearing of her breast ulcers. The definite aetiology of the FDIU remains elusive as all investigations of placenta and foetus were declined in keeping with her cultural values and traditions. However, clinically we suspect infectious origin, potentially septic haematogenous spread originating from the undertreated mastitis.

Discussion

The aetiology of mastitis can be infectious or non-infectious. Infections are usually due to skin flora (e.g. *S. aureus*) though some may be polymicrobial and include aerobic and anaerobic species [3].

Due to antepartum mastitis being an uncommon condition, the clinician must rule out the presence of inflammatory carcinoma [4, 5]. Carcinoma should also be considered in the puerperium if the index case is recurrent or refractory to targeted antibiotic treatment [6]. Breast ultrasound is an effective and safe modality for diagnosis and differentiation of breast lesions [6].

Between 3 to 11% of lactational mastitis cases progress to a tissue-destroying abscess [1]. Surgical drainage is indicated for the treatment of breast abscesses to ensure source control [1]. Surgery adds a layer of complexity in the antepartum setting as a general anaesthetic may be required.

Early identification and treatment of mastitis can preserve breast tissue and function as well as prevent sepsis and preclude surgical intervention. Antenatal maternal sepsis can be potentially life-threatening for both mother and baby in which prompt and aggressive treatment is required.

Conclusion

Case reports such as this are important to alert clinicians that antepartum mastitis is an uncommon though formidable occurrence. Early recognition and aggressive treatment of mastitis is important to avoid sepsis, abscess formation, and to minimize maternal and foetal morbidity and mortality. Neoplastic pathology needs to be considered as a differential in all women presenting antenatally with mastitis.

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