BILATERAL BREAST ABSCESS: A RARE COMPLICATION OF ENTERIC FEVER

Breast abscess is usually caused by Staphylococcus aureus in pregnant or lactating females. Salmonella spp. is occasionally associated with abscess formation in various organs, but breast abscess is a very rare complication. In enteric fever dissemination to multiple organ systems following bacteraemia can lead to localized abscess. We report a case of bilateral breast abscess due to Salmonella Typhi in an unmarried 35-year-old female without any predisposing conditions. She presented with fever and painful swelling of both the breasts. S. typhi was isolated from both breasts. Such rare cause must be suspected in females without any evident predisposing factors for effective management.

Key words: Breast abscess, complication, enteric fever

Salmonella Typhi is commonly identified as a gastrointestinal pathogen causing septicaemia resulting in enteric fever. This is a multisystem disease with generalized manifestations.Localized pyogenic complications may occur occasionally in organs with pre-existing abnormality. Abscess involving liver, spleen, pancreas, and multiple subcutaneous and injection sites have been reported. Among the known extraintestinal complications of enteric fever, breast abscess is rare. This report presents a case of bilateral breast abscess due to S. typhi.

Case Report

An unmarried 35-year-old female was admitted to the surgical ward on 3rd December 2007 with painful swelling of both the breasts and low-grade fever since 15 days. On examination, she was febrile (temperature 101 °F). The breasts were swollen and tender with a soft fluctuating mass (around 5 X 4 cm² and 4 X 4 cm² in left and right breasts, respectively) located at the left lower quadrant. The skin over the breast was erythematous. The nipple and areola were normal. The axillary lymph nodes were not palpable.

There was no history of previous breast disease, diarrhoea, constipation, or urinary complaints. She gave a history of high-grade fever one month back followed by complete recovery after taking treatment from a general physician. Her sister, staying with her, had suffered from enteric fever six-months back. She was diabetic, on oral antidiabetics for last two years without regular follow up for sugar control.

Systemic examination was unremarkable except for mild tachycardia (heart rate, 84/min).

The laboratory investigations revealed hemoglobin: 10.2g/dl and total leukocyte count: 14000/mm³ with 87% neutrophils. Her random and fasting blood sugar levels were 280 mg/dl and 190 mg/dl, respectively. Patient was admitted as a case of bilateral breast abscess. Approximately 30 ml of pus was drained after incision on both the sides (Fig. 1) and sent for bacteriological investigations. The patient was administered intravenous cefotaxime (1 gm, 8 hourly) and later switched over to oral amoxycillin (625 mg tablet, thrice daily) with good response.

The pus was processed by standard culture methods. Gram-negative bacilli were seen and S. typhi was isolated from both the breast specimen. The isolate agglutinated with salmonella
The diagnosis was confirmed with progressively increasing size of head circumference. The child presented without any predisposing factors. The child presented as a case of bilateral breast abscess due to S. typhi.

**Discussion**

The incidence of typhoid breast abscess, which arises in a case of generalized disease due to S. typhi, varies from 0.5% in general to 0.9% in females. In a study carried out on 6250 cases of salmonellosis, 100 cases suffered from focal pyogenic infection resulting into a frequency of 0.016% with only one case of breast abscess.

There has been a significant variation in the prevalence of breast abscess due to S. typhi infection in the available literature, from less than ten cases to thirty cases. This, however, indicates the rarity of breast abscess as a consequence of salmonella infection.

Our patient was initially not diagnosed as a case of enteric fever, but on isolation of S. typhi from pus; past history of an uninvestigated acute febrile illness (? enteric fever) was elicited. She also had a history of contact with a case of enteric fever. As such, there was no history of pre-existing breast disease, predisposing factors like pregnancy or lactation, other than diabetes mellitus.

Thus, to conclude, in patients with breast abscess without any evident predisposing factors, some systemic or generalized conditions should be kept in mind during investigations so that appropriate therapy may be given.

**Acknowledgment**

We would like to acknowledge the support from the institution and microbiology laboratory staff, particularly Dr Rupal Patel and Mrs Mudital Paliwal for their cooperation.

**References**