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## LETTER TO THE EDITOR

### Breast mass due to pectoral muscle tuberculosis mimicking breast cancer in a male patient

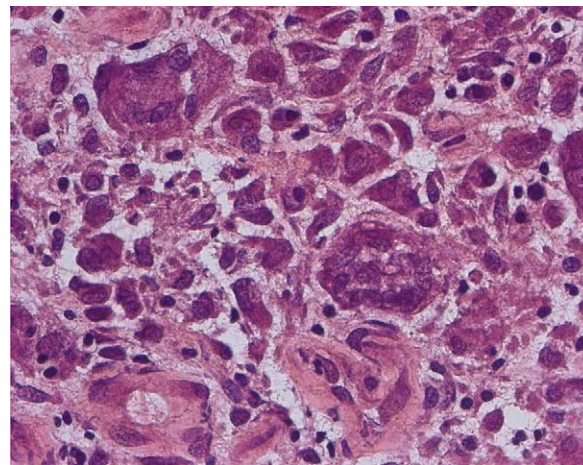
Tuberculosis (TB) remains a major health problem with an increasing frequency in the developed world.<sup>1</sup>

A 53-year-old man was admitted with a fixed tender mass in the lower quadrant of the right breast. The patient had been treated for pulmonary tuberculosis ten years earlier. Chest X-ray was normal. An ultrasound examination revealed a cystic mass in the retro-mammary region, while a subsequent CT scan showed a 3 × 7 cm anterior chest wall soft tissue mass with a necrotic centre. The ribs, pleura and lung fields all appeared normal.

Because of the high suspicion of malignancy, exploration was undertaken and dissection of the inter-pectoral space revealed a cystic abscess with necrotic material extending into breast tissue.

Subsequent histology demonstrated a chronic granulomatous lesion without evidence of malignancy (Figure 1). Stains for acid-fast bacilli were not undertaken. Culture was negative for mycobacteria, though PCR for *Mycobacterium tuberculosis* complex proved positive.

The breast, skeletal muscle and spleen are regarded as extremely resistant to tubercular infection with low incidences being reported in all three (0.1–5.0%).<sup>1,2</sup> Women are much more affected than men and to the authors' knowledge, only three cases of tuberculous mastitis in men have been reported in the English literature since 1945.<sup>3,4</sup> Breast tuberculosis can be primary or secondary following direct, lymphatic or haematogenous spread.<sup>2,5–8</sup> Direct extension of tuberculosis from the thoracic wall, especially pleura and ribs, to the breast has been described.<sup>1,7,9</sup> However, tuberculosis of the pectoral muscle is extremely rare and direct spread from this muscle to breast has not previously been reported. Tuberculous mastitis most commonly manifests clinically as a solitary breast mass or swelling, but may also present as a palpable axillary lymph node or a discharge from the nipple.



**Figure 1** Paraffin embedded section of surgical specimen. An inflammatory lesion with a multinuclear giant cell, foamy histiocytes and sparse leucocytes is shown, consistent with a granulomatous lesion (H&E, ×400).

Diagnosis of this disease is difficult. Both clinical and radiological findings are often non-specific and can mimic carcinoma, fibroadenoma or other inflammatory lesions.<sup>2</sup> Mammography, fine needle aspiration cytology and excision biopsy are reported to be successful in 14, 12 and 60% respectively.<sup>10</sup> However, histopathological findings, although demonstrating granulomatous change, may not be specific for the diagnosis unless acid-fast organisms are seen. In this case, a final diagnosis relies on the molecular or cultural detection of *Mycobacterium tuberculosis*.

*Conflict of interest:* No conflict of interest to declare.

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