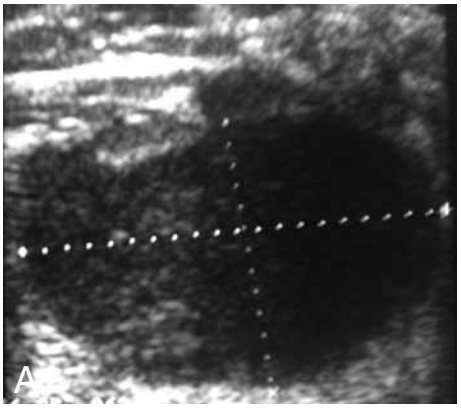
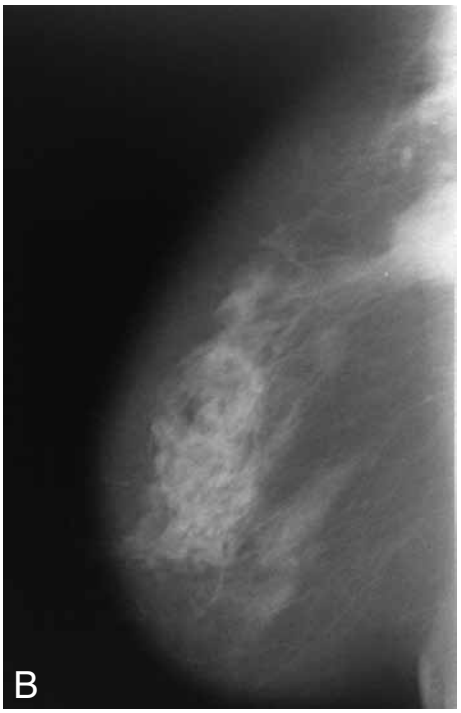
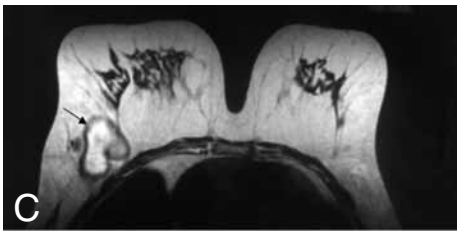
JBR–BTR, 2011, 94: 98.

IMAGES IN CLINICAL RADIOLOGY







Primary breast tuberculosis

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A 67-year-old Mediterranean single lady presented with a right breast lump that had been gradually increasing in size for four months. On palpation, the mass measured 3 x 5 cm in size and felt solid and irregular in nature. No redness or change in skin color was noted. A draining sinus from the medial aspect of the ipsilateral axilla was noted. This was associated with purulent discharge and a palpable 2 cm axillary lymph node. The patient reported no fever, cough or sputum production. Her chest X-ray was normal. Ultrasound of the breasts showed a large hypoechoic solid nodule with slightly irregular contour in the right breast (A) raising the suspicion of a phylloides tumor or fibroadenoma. Multiple axillary lymph nodes were also noted, one of which was associated with a sinus tract. Mammography revealed a suspicious irregular mass in the right breast (B). Magnetic resonance imaging (MRI) of the breasts showed a macro-lobulated cyst with a necrotic component and a thick peripheral rim (C). There was extension to the pectoralis major muscle with linear extension to the lymph nodes, some of which were necrotic. Core needle biopsy of the cystic mass ruled out malignancy but showed abundance of inflammatory cells. The patient was taken to the operating room for excision of the right breast mass. An incision over the mass was extended to the axilla whereby the mass was totally excised down to the pectoral muscles together with the axillary sinus which was communicating with both lymph nodes. The frozen section was negative for malignancy.

Pathological evaluation revealed an abscess lesion showing necrotizing granulomatous changes with cavernous formation surrounded by purulent inflammatory infiltrate and a granulomatous reaction composed of histiocytes, multinucleated giant cells, lymphocytes, and plasma cells. Caseous acellular necrosis was also noted. The tuberculosis skin test (PPD) was strongly positive. The patient was treated with antituberculous regimens as per WHO recommendations and showed complete remission.

Primary breast tuberculosis is a rare entity (0.25-3.20% of all breast lesions). Unlike the unique case reported herein, primary breast tuberculosis is mainly associated with direct abrasion like rib infection or breast feeding and is mostly reported the reproductive age, when the breast duct and sinuses are most prone to changes and dilation (1). The spread to the lymph nodes follows a certain pattern, with the ipsilateral axillary and cervical lymph nodes affected in the majority of the cases (1). Our patient presented with a four month history of a right breast lump, with no redness or change in skin color, but associated with palpable axillary lymph nodes and a sinus tract.

Breast tuberculosis presents a diagnostic challenge as it may be mistaken for a pyogenic abscess or breast carcinoma on imaging modalities. Pathological evaluation is necessary to confirm the diagnosis. Despite performing all the necessary diagnostic imaging studies for our patient, an accurate diagnosis was only confirmed with pathological studies. Treatment consists of incision and drainage, partial mastectomy, or simple mastectomy with or without axillary dissection, depending on the case. This is usually followed by standard antituberculous therapy for cure.

Reference

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