Unusual presentation of more common disease/injury

Male breast cancer is rare: an initial presentation may be as an abscess

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Summary

Breast cancer in men is rare. Breast cancer presenting initially as an abscess has been described only a handful of times in the literature. We present the first described case of invasive adenocarcinoma presenting as an abscess in a man. An 80-year-old diabetic man presented with symptoms typical of a breast abscess. The abscess failed to respond to percutaneous therapy and excision of breast abscess was performed. Histology revealed an invasive carcinoma. He went on to have a mastectomy. Histology should be obtained from breast abscesses not resolving within 2 months of initial percutaneous therapy. Histology could be obtained by ultrasound-guided fine-needle aspiration (FNA), core or vacuum assisted biopsy, or by formal incision and drainage.

BACKGROUND

Breast cancer in men is rare. Breast cancer presenting initially as an abscess has been described only a handful of times in the literature. We present the first described case of invasive adenocarcinoma presenting as an abscess in a man.

CASE PRESENTATION

An 80-year-old non-insulin-dependent diabetic gentleman was referred to the breast clinic, complaining of pain and

swelling in the right breast for 2 weeks. He had no previous history of breast complaints. He had a 7-day course of antibiotics with no improvement. On examination, he was found to have a tender, erythematous, pointing mass in the subareolar area of the right breast. There was no axillary or supraclavicular lymphadenopathy. An ultrasound scan demonstrated a 3 cm diameter abscess visible in the right retro-areolar area (figure 1). He did not have mammogram radiographs at this point. He was diagnosed to have a breast

Figure 1 Ultrasound scan demonstrating a 3 cm superficial right-breast-abscess cavity with mixed echogenicity.

abscess, with diabetes mellitus as a contributing factor. The abscess was aspirated in clinic yielding 2 ml of thick pus. Despite two further ultrasound-guided fine-needle aspirations, the abscess failed to resolve, and he underwent incision and drainage. A quantity of 10 ml of thick pus was evacuated; the cavity was left open and packed with regular alginate dressings. He was reviewed 1 month later when the wound was healing well by secondary intention given his diabetic status. He was discharged into the care of community dressings nurses on the agreement that he would be re-referred should any further concerns regarding the wound arise.

He was re-referred by the general practitioner 4 months later as the wound was not healing with residual swelling and induration. He then underwent excision of the abscess. The abscess was de-roofed and the cavity wall was excised and sent for histology.

INVESTIGATIONS

The histology revealed invasive adenocarcinoma.

TREATMENT

He had a right mastectomy and sentinel-node biopsy. Sentinel-node histology was negative for neoplasia. Adjuvant treatment with tamoxifen was commenced.

DISCUSSION

Male breast cancer is rare with an incidence of 1.2 in 100 000.¹ Breast malignancy presenting as an abscess is also a very rare phenomena. The combination of both a male breast cancer and an unusual presentation as an abscess make this a very distinctive case. Literature review reveals only a case series of eight female patients with adenocarcinoma presenting as an abscess.² Several cases were also reported of primary squamous cell carcinoma presenting as a breast abscess in women.^{3–8} Given its rarity, it has been suggested that a malignancy when associated with an overlying breast abscess is coincidental, and, therefore, it is not necessary to always biopsy the cavity wall.⁹

Over recent years, there has been a trend towards minimally invasive methods of breast-abscess drainage. Ultrasound-guided drainage has become the first-line treatment in many centres, and recently vacuum-assisted core-biopsy devices (mammotome) have been advocated.^{9–10} Percutaneous therapies have been shown to be effective treatment for the abscess itself,⁹ but do not obtain tissue for histological examination. Fine-needle aspiration (FNA) and cytology is often useful in diagnosis of diseases of the breast; however, the difficulty in distinguishing between well-differentiated tumours, tumours with necrosis and inflammation, and those changes seen in a breast abscess make it less useful.⁴

Scott and his colleagues in 2006² set out to address the issue of whether the rate of breast cancers occurring in breast abscesses warranted biopsying all abscesses, and therefore, whether percutaneous drainage without biopsy was a safe and valid method.

They found that 9 of 206 patients (4.3%) were diagnosed with malignancy in cavity-wall tissue. They concluded that malignancy presenting as an abscess was a suitably rare finding and that, in such cases, ultrasound-directed aspiration without biopsy should be the first-line therapy. The ongoing argument is that performing biopsy on all abscesses would place an unnecessary burden on histopathology services, given the low yield of malignancies. All of the published cases in the literature of malignancies related to an abscess have been described in women aged more than 40 years,^{3–8} an exception being an angiolipoma presenting as a breast abscess in a 21-year-old woman.²

Learning points

- We agree that malignancy underlying a breast abscess is a rare occurrence and first-line management should be percutaneous treatment. However, the lesson learnt from this case stresses the importance of obtaining cavity-wall tissue for histology on any chronic, non-resolving breast abscess. To ensure complete resolution of breast abscesses adequate follow-up should be provided.
- We feel that rather than biopsying all abscesses, a more focused strategy may be more appropriate. This could involve obtaining a cavity-wall specimen in all abscesses not resolving within 2 months after initial percutaneous management. This histology can be obtained by ultrasound guided FNA, core or vacuum-assisted biopsy or by formal incision and drainage.

Competing interests None.

Patient consent Obtained.

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