Retained Foreign Bodies in The Breast
(Case Report)

The diagnosis of retained surgical foreign bodies before reoperation can be very difficult. The most common surgical retained foreign body is a laparotomy sponge (1). Computed tomographic and ultrasonographic examinations appear to be valuable modalities for evaluating retained surgical foreign bodies (2, 3, 4, 5). Ultrasonography is an effective imaging modality for the diagnosis of silicon gel breast implant rupture (6). However no report was found about the mammographic appearance of a retained surgical foreign body. We describe the mammographic and ultrasonographic appearances of a retained drain and mammographic appearances of a broken suture needle.

Key Words: Retained foreign bodies, breast calcification.

Case 1

A 32 year old woman presented with a mass in her right breast. A year before, she had undergone biopsy for suspected mass lesion and pathologic examination was benign. After surgery she noted a firm mass in the biopsy area. Physical examination showed a firm mass and biopsy scar in her right breast. On ultrasonography a tubular, hypoechoic structure was seen in the lower outer quadrant. Hypoechoic mass was seen near the deeper portion of the structure. This mass was evaluated as abcess (Fig 1. a,b). On mammography a well defined tubular density was seen in her right breast. There were fine radiolucent and radiodense lines within the structure. This tissue was dense at the periphery of the lesion (Fig 2. a,b). At the operation, a retained drain and abcess were found.

Case 2

A 35 year old woman was biopsied for a suspected mass lesion and pathologic diagnosis was fibrocystic disease. Three months later, a control mammogram showed a broken suture needle in her left breast. There were amorphous calcifications at the periphery of the needle (Fig 3). The needle was localized stereotactically and removed.

Discussion

Retained foreign bodies cause an inflammatory reaction that may be fibrous or exudative. Low-grade inflammation leads to adhesive encapsulation and generally do not cause symptoms. Sometimes a palpable mass may be found. There was a palpable mass in our first case.
but it not the cause of pain or tenderness. Second case was asymptomatic.

Radiopaque foreign bodies are readily visible on plain radiography, but surgical sponges or drains without radiopaque markers or a characteristic gas shadows, the diagnosis is difficult with plain radiography alone (2). Mammography is a soft tissue technique and enhances the differential absorption in similar tissues like fat, fibrous tissue and muscles. Therefore, in our first case, the diagnosis with mammography was possible. As the suture needle is radiopaque, the diagnosis of the second case was very simple.

Sonographic appearances of retained foreign bodies are quite nonspecific. Sonography shows a reniform mass or a cystic mass with internal echoes. In our first case drain and neighboring abscess was shown correctly.

Calcification can be seen within a foreign body mass although it is a rare phenomenon (5). Calcified remnants of suture material can also be seen at the lumpectomy site (7). In our second case there are amorphous calcifications at the periphery of the needle after only three months.

The problem of foreign bodies will exist as long as surgical operations are performed and nonabsorbable materials are used in these operations. Although the diagnosis in our cases were very simple, retained foreign bodies represent a diagnostic dilemma. A retained foreign body should be kept in mind during the investigation of a mass with a history of previous surgical intervention.

Fig 1.b. Sonogram shows tubular, hypoechoic structure and neighboring abscess in the right breast.

Fig 1.a. Sonogram shows tubular, hypoechoic structure and neighboring abscess in the right breast.

Fig 2. a,b. Mammograms show well defined tubular structure with fine radiolucent and radiodense lines in the lower outer quadrant of the right breast.
Fig 3. Mammogram shows a metallic foreign body (broken suture needle) and amorphous calcifications at the periphery of the needle.

**Literature**


