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CASE REPORT

Axillary lipogranuloma mimicking carcinoma metastasis after silicone breast implant rupture: A case report

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KEYWORDS
Silicone granuloma;
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Summary Silicone-gel-filled breast implants have been widely used for breast augmentation and reconstruction after mastectomy. However, silicone implants have some well-known complications, such as implant rupture, which requires surgical intervention. Dissemination of silicone particles out of the implant causes a granulomatous reaction, a phenomenon known as silicone granuloma, in breast parenchyma as well as axillary, breast and chest wall lymph nodes, which mimics breast cancer metastasis. However, lipogranuloma after silicone breast implant rupture has not been reported in the literature, although it is a common complication after mineral oil or liquid silicone injection. We present a case report of an axillary lymphadenopathy resulting from lipogranuloma after silicone-gel-filled implant rupture. Review of the literature suggests that this is the first report of a lipogranuloma resulting from implant rupture.

Silicone-gel-filled breast implants have been widely used for breast augmentation and reconstruction after mastectomy. However, silicone implants have some well-known complications requiring new surgery. The most common complication leading to a new surgery after breast augmentation is capsular contracture followed by implant

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rupture.[1] Although manufacturers report rates of implant rupture as low as 0.2—1%, according to the Food and Drug Administration (FDA) it occurs more often and it seems that the implant rupture rates are increasing in time.[2,3] Changes in breast symmetry, size and texture are reported symptoms for silicone implant rupture. However, it may be silent and only diagnosed by breast imaging modalities as free silicone is surrounded by fibrous capsule. Extracapsular dissemination of silicone particles to different local or distant tissues by transcutaneal, intraductal or fascial routes has also been reported.[4] The disseminated silicone particles cause a granulomatous reaction in axillary, breast or chest wall lymph nodes, mimicking breast cancer metastasis, a well-known phenomenon termed silicone granuloma.[5] However, lipogranuloma after silicone breast implant rupture has not been reported in the literature although it is a very common complication after mineral oil or liquid silicone injection.

We present a case report with axillary lymphadenopathy resulting from lipogranuloma after silicone-gel-filled implant rupture. Review of the literature suggests that this is the first description of a lipogranuloma resulting from implant rupture.

Case report

A 36-year-old woman applied to the department of plastic, reconstructive and aesthetic surgery with a 4-week history of a lump in the right axillary region. She had a history of phylloides tumour on her right breast and she had undergone surgery for partial mastectomy and reconstruction with unilateral breast implant afterwards 6 years ago. Physical examination revealed contour abnormality on the right breast and multiple painless firm lymph nodes reaching 8 × 4-cm size in the right axilla with irregular contour (Figure 1). A tumour recurrence and metastasis were strongly suspected and a magnetic resonance imaging (MRI) exam of the breast was requested. MRI revealed multiple enlarged lymphadenopathy-like masses at the superolateral aspect of the breast and extracapsular collections of silicone outside the implant lumen compatible with prosthesis rupture (Figure 2). She had no history of trauma related to breast implant rupture. She has been operated under general anaesthesia and on exploration, it was noted that the textured, round breast implant (without any label on it) had multiple tears with intracapsular silicone leakage. The implant was explanted with all leaked silicone and contracted capsule tissues around the implant were excised (Figure 3). The axillary mass was excised and sent for histopathological examination. Histopathological examination revealed that the structure of all lymph nodes was disfigured. However, there was no sign of tumour or necrosis. Histopathology of the slides revealed numerous lipid vacuoles with surrounding inflammatory granulomatous infiltrate, involving epitheloid histiocyte proliferation and multinuclear giant cells. The proliferating histiocytes were positive for CD 68. The final histopathological diagnosis was lipogranuloma (Figure 4). The pathologic specimens were also evaluated by a polarised light microscope and it revealed that there were no refractive, birefringent silicone particles (Figure 5).

The patient refused to replace her implant with a new one. Postoperative recovery was uneventful and the patient still remains well.

Figure 1 Contour abnormality is seen on the right breast of the patient preoperatively.

Discussion

Occurrence of lymphadenopathy containing silicone granuloma in the lymph nodes is a well-known phenomenon after using a silicone-gel-filled breast implant or a silicone injection for breast augmentation or reconstruction.[5] However, to our knowledge, lipogranuloma developing in the axillary

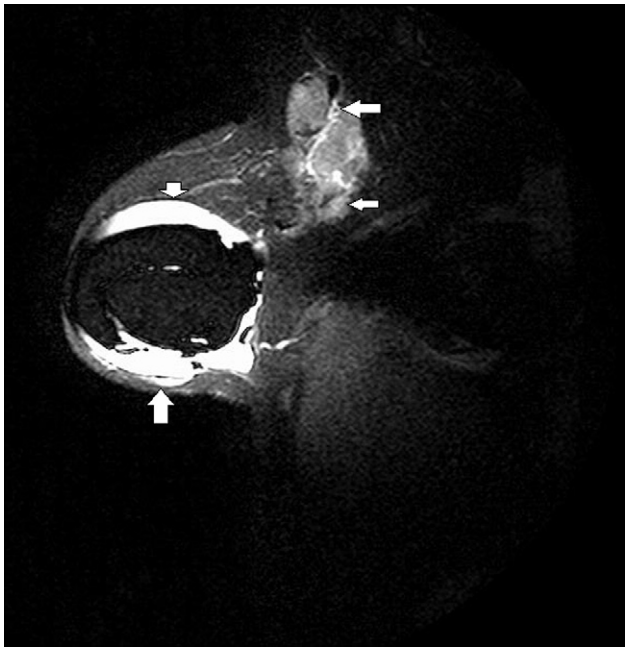

Figure 2 Sagittal MR images were obtained with T2-weighted SPAIR sequence shows masses like lymphadenopathy at the superior aspect of the breasts (arrows) and collections of silicone outside implant lumen (arrowhead) which are diagnostic of extracapsular rupture.