ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
Index Copernicus Value: 68 . 16
PubMed - National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 5, Issue –2, April - 2020, Page No. : 205 - 208

Unusual location of subcutaneous dermoid cyst in breast: A case report

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Citation this Article: Satya Prakash Meena, Mahaveer Rodha, Mayank Badkur, Mahendra Lodha, "Unusual location of subcutaneous dermoid cyst in breast: A case report", IJMSIR- April - 2020, Vol – 5, Issue -2, P. No. 205 – 208.
Type of Publication: Case Report
Conflicts of Interest: Nil

Abstract

A sixty-seven years old male presented with complaint of large left breast swelling for many age and sudden growth in size for last one year. Initially we misdiagnosed as carcinoma breast with lung metastasis after clinical and X-ray examination but CECT chest reported a benign subcutaneous cystic swelling beneath the nipple-areola complex. The patient underwent surgical excision and final histopathological diagnosis reported as a benign dermoid cyst. We concluded that the subcutaneous dermoid cyst might have unusual presentations as a differential diagnosis of gynecomastia or carcinoma breast

Keywords: CECT, X- Ray, CYST.

Introduction

A dermoid cyst is cystic swelling and may appear in the mediastinum, abdomen and external surface of the body. The most common placement of the subcutaneous dermoid cyst is an embryological line of bony fusion like inner and outer canthus of the eye socket, pre auricular, post auricular, base of the nose, lateral forehead, anterior neck, scalp, midline upper and lower back. [(1,2)] Out of which, a lateral one-third canthus is the most common location of the dermoid cyst. [(3)] Most of the dermoid cyst are congenital and embryological developed from ectodermal, mesenchymal, sometime endodermal tissue like an ovarian dermoid cyst. This may have epidermis, sebaceous glands, small nerves, hair follicles and connective tissues. All epidermoid inclusion cyst is epidermal in origin and have similar clinical features. The epidermoid inclusion cyst has Pilo-sebaceous contains and appear anywhere over the torso, but common situations are the scalp, neck, back, gluteal, extremities. [(4,5)]

Case Report

A sixty-seven-year-old male patient was presented in an outdoor patient department with primary complaints of left breast swelling, mild cough, but no history of fever, bone pain, headache, vomiting, pain abdomen, distension and weight loss. He possessed a previous history of chest tuberculosis and took complete anti-

tubercular therapy. On clinical examination, we found a Left breast lump of 7x7 cm size, nearly globular in form, smooth surface, small healed ulcer with scab and no discharge seen(Fig.1)

The breast lump was non-tender, normal temperature, firm in consistency, mobile but slightly limited mobility on pectoral muscle taut. The axillary and neck lymph nodes were not palpable. All routine blood investigations were normal. The X-ray chest suggested haziness in the right upper and left middle zone. (Fig.2) After getting those investigations probable clinical diagnosis was made as carcinoma breast with metastasis. The patient was further investigated for imaging and pathology. CECT chest features were cystic lesion of size 6.8x6.7x6.2 cm in the left anterior chest wall. Fat planes were maintained with pectoral muscle. There were patchy consolidation, fibro calcified and cavitation lesion in the right upper lobe and enlarged mediastinal lymph nodes.

Fig. 1: Showing large breast swelling and nipple deviated to lateral side.

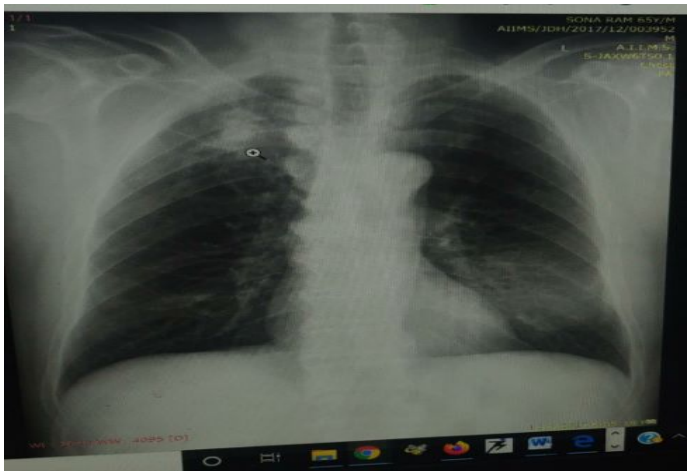

Fig. 2: X-ray chest showing suggested haziness in the right upper and left middle zone.

All features suggested of large sebaceous cyst and old pulmonary Koch's with bilateral bronchitis. All three samples of sputum examinations were negative for acid-fast bacteria and positive for gram-positive bacteria. FNAC report revealed an epidermal inclusion cyst. The patient was operated and complete swelling excised without complication. The intraoperative finding were a large, thick wall cyst in subcutaneous tissue of breast. The base of cyst adherent to the pectoral fascia. The nipple areola complex deviated toward lateral chest. (Fig. 3)

The final histopathological examination showed a cyst lined by stratified squamous epithelium with preserved granular layer and containing keratin fakes, surrounded by a moderate chronic inflammatory infiltrate. Few areas show occasional pilosebaceous unit as well. All these findings confirmed the diagnosis of dermoid cyst. The patient was discharged on day 3 after negative suction drain removal(Fig.4). The follow-up period was uneventful.

Fig. 3: Intraoperative showing large subcutaneous dermoid cyst adherent to pectoral fascia, excised with elliptical incision.

Fig.4: Showing postoperative picture

Discussion

In our case, the preoperative diagnosis was infected sebaceous cyst mimicking as carcinoma breast and the final postoperative diagnosis was reached as a dermoid cyst according to histopathology report. A very few cases reported as subcutaneous dermoid cyst with atypical location other than a line of embryonic bony fusion. [(1)] Previously reported dermoid cysts were small in size but in our case, the dermoid cyst was large about 7x7 cm.[(1)] Usually midline dermoid cyst is adherent to the underlying bone in line of fusion and preoperative CECT required to rule out underlying bony erosion or invasion. [(1,2)] In our case location was unusual over the chest wall with a displacement of nipple-areola complex and adherent with pectoral fascia, not with underlying bones.

The importance of reporting this lesion lies in the fact that it can be mistaken for any benign or malignant lesion of the breast both clinically as well as radiologically. Fine needle aspirate cytology is a simple method to diagnose malignancy or common benign lesions like a sebaceous cyst. In our case, the definitive diagnosis was made through histopathology. A few literature showed the unusual location of sebaceous cyst in the breast but no single literature published for large dermoid cyst in breast.

Conclusion

Breast is an unusual location of a subcutaneous dermoid cyst and we should consider it as a differential diagnosis of breast lump. The true incidence of malignant change in dermoid cysts is not known.

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