CASE REPORT

Bilateral axillary masses mimicking as accessory breast with multiple fibroadenoma and bilateral gigantomastia in HIV-positive patient

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SUMMARY

Accessory breast is a rare entity that can present as asymptomatic masses or can cause symptoms like heaviness, pain, restriction of arm movement and limitation in daily pursuits with allied apprehension and anxiety for the patient. We present a case of bilateral axillary masses mimicking as accessory breast with multiple fibroadenoma in a 28 years, nulliparous, Indian woman who is HIV positive, which proves to be a diagnostic dilemma. Excisional biopsy was diagnostic. The rarity of such cases imposes challenges on the management in terms of diagnosis, prognosis and therapeutic options.

lymphadenopathy, opportunistic coinfections and neoplasia.³

Several cases of proliferative disorders of breast have been reported in literature for the patients suffering from AIDS.

Diagnosis of accessory breast tissue is important because it is subjected to spectrum of diseases that affects breast such as mastitis, abscess and fibroadenoma, fibrocystic disease, phyllodes tumour, Paget's disease as well breast cancer. We are reporting a very rare conglomeration of these three isolated occurrences, that is, bilateral accessory breast with bilateral gigantomastia in a HIV-positive woman.

CASE PRESENTATION

A 28 years premenopausal, nulliparous, HIV-positive Indian woman, widow of a truck driver, presented with masses in both axilla for last 2 years with both breast gradually enlarging. There was no other comorbidity and history of benign breast disorder or oral contraceptive use. Family history of breast disorder and any malignancy was also absent.

Examination revealed both breasts hugely enlarged with globular, non-tender firm masses in both the axilla (right 12×8 cm, left 6×5 cm; figure 1). Axillary masses were without any nipple-areola complex. Another discrete swelling of 2×2.5 cm was noticed in lower outer quadrant of right breast, which was non-tender firm and freely mobile.

A clinical diagnosis of bilateral gigantomastia with bilateral accessory breast with right breast fibroadenoma was considered. The patient had symptoms like heaviness and restriction of arm movements and these were the primary reason for consultation.

BACKGROUND

Accessory breast is synonymous with polymastia or supernumerary breast.

Mammary gland begins to develop early in embryonic life from ectodermal mammary streaks. Incomplete involution can result in foci of accessory breast tissue anywhere along the milk-line. Ectopic breast tissue occurs with an incidence of 0.4–6%¹ in normal population, and the commonest location is axilla. This may contain all the three elements parenchyma, areola and nipple or any combination of them. Ectopic breast tissue is functionally analogous to mammary gland and it is subjected to same alteration and diseases. Hypertrophy of breast (macromastia and gigantomastia) is a rare condition where breast weight exceeds approximately 3% of total body weight.² In the setting of underlying HIV infection, breast masses may be related to reactive conditions like

Figure 1 Bilateral axillary masses with gigantomastia.

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Figure 2 (A) Elongated compressed glands with periglandular loose myxoid stroma. (B) Skin, subcutaneous fat with lobules of proliferated gland.

INVESTIGATIONS

High-resolution ultrasound of both breasts demonstrated bilateral axillary mass like lesion with multiple nodular lesions in B/L breast; with multiple well-defined solid appearing hypoechoic focal lesions in mammary layer in right breast in superior as well as inferior lateral quadrant from 7 to 12 o'clock position with largest one measuring 4.5 cm.

Fine needle aspiration cytology (FNAC) was suggestive of fibroadenoma in right breast and also in right accessory breast. However, she also developed cellulitis around injection site after FNAC of the axillary lump, leading to later serous discharge with fever that was responsive to 2 weeks of antibiotic therapy (linezolid 1200 mg/day with anti-inflammatory drugs).

DIFFERENTIAL DIAGNOSIS

Misdiagnosis of accessory breast tissue is common and most common differentials include lipoma, lymphadenopathy, hidradenitis, sebaceous cyst, vascular malformation and malignancy.^{4,5}

TREATMENT

Because of symptomatic masses, her concern for cancer and secondary infection after FNAC with HIV status (immunocompromised status), surgical intervention was considered. Resection of bilateral axillary masses and right breast lumpectomy was performed under general anaesthesia taking all universal precautions for surgery in HIV-positive patient. Histopathology (figure 2) came out to be benign fibroadenomatous hyperplasia suggestive of fibroadenoma with no demonstrable atypical or malignant pathology.

OUTCOME AND FOLLOW-UP

Immediate postoperative period was uneventful, but later on she developed circumferential breast oedema, lymphangitis with fluid discharge from skin of right breast, probably because of lymphatic blockade resulting from excision of tail of breast. She was managed conservatively and relieved gradually in 3 weeks (figure 3).

Histopathology was benign fibroadenomatous hyperplasia suggestive of fibroadenoma with no demonstrable atypical or malignant pathology.

DISCUSSION

Prevalence of accessory breast tissue is dependent on gender, ethnicity, geographical area and inheritance. Women report a higher rate than men. Axillary accessory breast may prove to be a diagnostic dilemma which enlarges upon hormonal stimulation during puberty, pregnancy and lactation. Accessory breast tissue has been reported to be associated with congenital anomalies of urogenital and cardiovascular system. Ectopic breast tissue in patients has been reported as an important cutaneous indicator of conduction system defects of cardiovascular system.⁶ In our patient we did not find any associated congenital anomaly. In the absence of nipple and areola complex, the diagnosis is rarely made clinically. Both benign and malignant diseases of accessory breast tissue, as in normal breast, have been described. Hypertrophy of breast (macromastia and gigantomastia) is thought to be caused due to heightened sensitivity of breast connective tissue to female hormones, such as prolactin, progesterone and oestrogen.

Exact diagnosis is crucial, as breast carcinoma can also arise in accessory breast. If doubt exists then mammography, needle biopsy or surgical biopsy of the area should be undertaken.

It is generally recommended that accessory breast tissue be excised.^{7,8} Excision of ectopic axillary breast tissue may be required for diagnosis, treatment of symptoms or cosmesis, and is the definitive treatment for this condition. Indication for surgery in our case was symptomatic bilateral axillary mass,

Figure 3 Three-week follow-up postsurgery.

patient's concern for cancer and infection in masses after FNAC. We have not considered this patient for reduction mammoplasty, since she was not willing and had concern with axillary masses only.

Postsurgical complications include incomplete removal of glandular breast tissue, poor scar, intercostobrachial nerve injury and lymphoedema of the arm.

We have not come across any similar case reported in English literature.

Learning points

- ▶ Bilateral axillary breast with gigantomastia in a HIV-positive patient is an extremely rare entity.
- ▶ Proper radiological and histological evaluation must be considered in such circumstances.
- ▶ Association of accessory breast with other congenital anomalies warrants increased consideration by researchers and the creation of innovative clinical treatment.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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