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CASE REPORT

Large Benign Apocrine Cyst in Young Adult Male Breast

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Abstract
Benign breast cyst is common in females in the reproductive age group. However, it is rare in males. Males without gynecomastia are not considered candidates for development of benign breast cyst. Here, we report a case of a large benign apocrine cyst in a young adult male breast. A 16-year-old adolescent male presented with complaints of swelling on the right breast of 2-month duration. He noticed gradual increase in the size of the swelling. No history of nipple retraction, nipple discharge, similar swellings in the opposite breast or axilla, pain, or fever. Examination of the right breast showed a soft cystic swelling under right nipple areolar complex of size 4 × 4 cm size. Ultrasound evaluation of right breast showed oval anechoic cystic lesion measuring 4.4 × 4 × 1 cm in retroareolar location with fine internal contents and axilla showed a small lymph node with preserved hilum (maximum size 6 mm) in right axilla. FNA from the breast cyst yielded turbid fluid and cytology was inconclusive. He underwent excision biopsy under GA. Histopathology showed benign apocrine cyst with papillary hyperplasia and prominent apocrine metaplasia. His postoperative period and outpatient follow-up were uneventful. Apocrine cyst in male breast is a rare clinical entity. Triple assessment and excision helps in complete recovery.

Keywords Apocrine cyst · Male · Gynecomastia · Benign breast disease

Case Report

A 16-year-old adolescent male presented with complaints of swelling on the right breast of 2-month duration. Swelling was present below the nipple areolar complex. He noticed gradual increase in the size of the swelling. No history of nipple retraction, nipple discharge, similar swellings in the opposite breast and axilla, pain, fever or recent history of trauma. No relevant family history. His general examination and systemic examination was within normal limits. Examination of the right breast showed a soft cystic swelling under right nipple areolar complex of size 4 × 4 cm size (Fig. 1). Opposite breast and axilla were normal. Ultrasound evaluation of right breast showed an oval anechoic cystic lesion measuring 4.4 × 4 × 1 cm in retroareolar location with fine internal contents and right axilla showed a small lymph node with preserved hilum (maximum size 6 mm) (Fig. 1). Fine-needle aspiration from breast yielded turbid fluid and cytology was inconclusive. Since no conclusive guideline was available regarding the management of male breast cyst, available options were discussed with the patient and caretakers. He underwent excision biopsy under general anesthesia. Histopathology showed benign breast cyst with papillary hyperplasia and prominent apocrine metaplasia (Fig. 2). His postoperative period and outpatient follow-up were uneventful.

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Discussion

Breast cysts are common in the women of reproductive age group and usually present as palpable breast lumps [1]. Breast cysts in the females are usually associated with hormonal imbalances [1]. Medical literature describes that benign breast

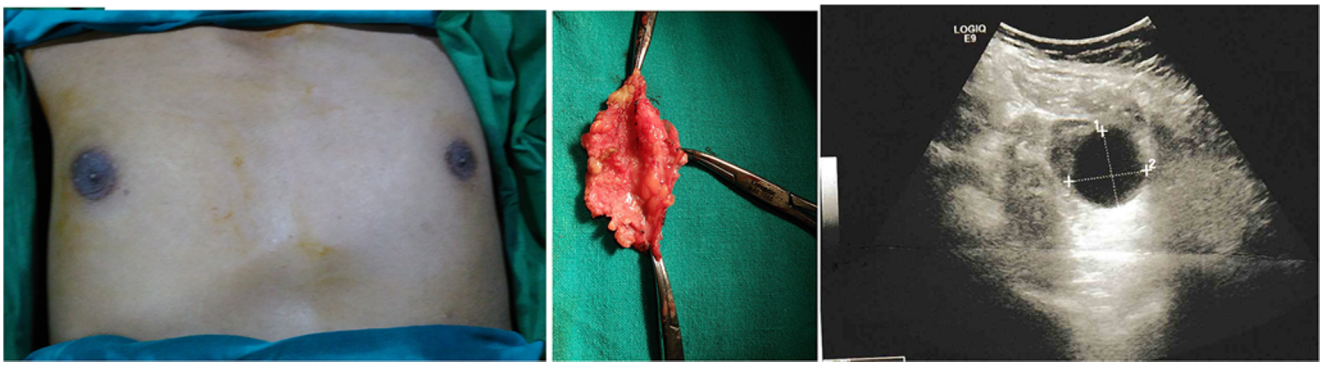

Fig. 1 Cystic swelling of right breast, its ultrasound appearance and excision biopsy specimen

disease in a female is usually due to estrogen predominance and progesterone deficiency. In a male breast, palpable lumps are not common and common differential diagnosis includes gynecomastia or gynecomazia, carcinoma breast, lipoma, dermoid cyst, and other subcutaneous swellings [2–5]. Male breast cysts are rare and are usually associated with the carcinoma of male breast [4].

Benign male breast cyst is extremely rare and is usually found in the males with gynecomastia. Till date, as of our knowledge, medical literature has only one reported case of benign male breast cyst without gynecomastia [6]. This was an incidental finding in a patient with lymphoma when extensive evaluation was done related to lymphoma and recurrence of disease. However, our patient had no comorbid illness. After confirming the clinical diagnosis with imaging, we attempted fine-needle aspiration from the cyst which yielded turbid fluid, however as cytology was inconclusive [7]. Management of previous similar cases included mammography; however, mammography was not done in our patient, because of technical difficulties in a male breast without gynecomastia.

Management options of benign breast cyst include excision biopsy, repeated aspiration, and close follow-up [7]. Due to the rare occurrence of the male breast cyst, there were no guidelines available regarding the management of male breast cyst. Hence, after discussion with the patient and caretakers, we decided to proceed with excision biopsy.

Excision is curative treatment for benign male breast cyst. Histopathological examination of the excised breast cyst is important, in order to rule out carcinoma male breast [8]. Histopathology of our patient showed benign breast cyst with papillary hyperplasia and prominent apocrine metaplasia.

Following excision, he was followed up in the surgery OPD after 1 week. He is fine and the wound has healed well. He showed no evidence of recurrence of the disease after 2 months of follow-up in the OPD.

Conclusion

Benign male breast cyst without gynecomastia is an extremely rare clinical entity. Triple assessment helps in the

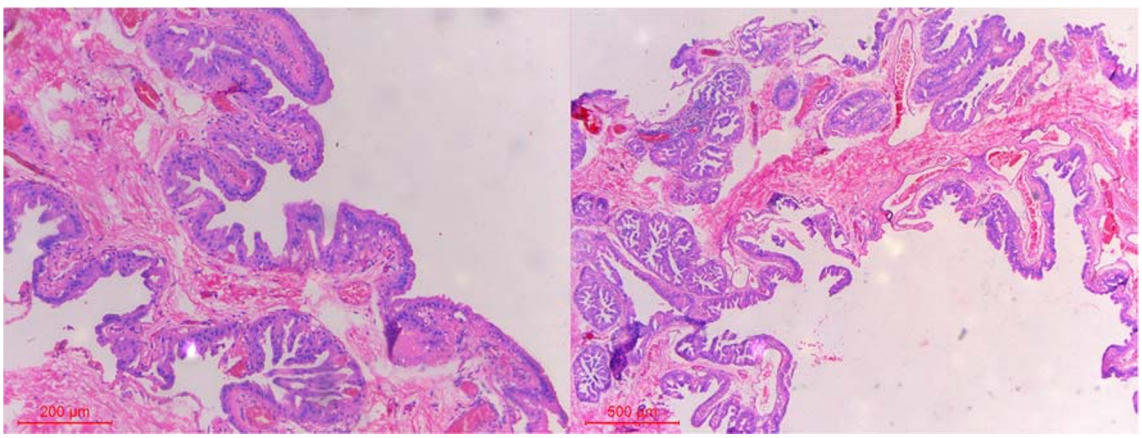

Fig. 2 Histopathology showing benign breast cyst with papillary hyperplasia and prominent apocrine metaplasia

diagnosis and complete excision helps in the complete recovery.

Compliance with Ethical Standards

Conflict of Interest The authors declare that there is no conflict of interest.

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