



Case Report

Primary Hydatid Cyst Presenting As a Breast Lump: Case Report

Pravin Wamanrao Nikhade¹, Anjali Milind Chitale²

¹First Year Surgery Resident, ²Professor,
A.C.P.M Medical College, Dhule, Maharashtra, India.

Corresponding Author: Pravin Wamanrao Nikhade

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ABSTRACT

Cystic hydatid disease is caused by the Echinococcus granulosus parasite. Most frequently, cysts develop in liver and lung. The breast is rarely a site of the hydatid cyst. It can be a site of primary hydatid cyst or part of disseminated hydatidosis. So the possibility of hydatid disease should always be considered in the case of cystic lesions of any organ, especially those in the endemic region. The best treatment modality is surgical excision.

Key words: Hydatid cyst, Breast lump, Echinococcus.

INTRODUCTION

Hydatid cyst is a disease which is caused by the larval form of Echinococcus granulosus and seen endemically among sheep-raising communities. The disease still continues to be a serious problem in countries such as Australia and New-Zealand, as well as Mediterranean and Middle-Eastern countries, in some parts of Russia, and North and South America. ⁽¹⁾ The larvae penetrate the bowel mucosa and arrive in the liver via the portal vein. 70% of the cysts develop in the liver, 20% in the lung and 10% in other organs such as the pancreas, gall bladder, spleen, kidney, brain, thyroid and breast. Hydatid cyst of the breast accounts for 0.27% of all cases. ⁽²⁾ Here we are presenting a case of a 39 year old female with breast lump, which after surgical excision, turned out to be a case of hydatid disease.

CASE REPORT

A 26-year-old woman, a farmer rearing sheep and cattle, presented with a painless lump in lower and outer quadrant of her left breast for one year. There was no history of associated pain, nipple discharge, fever or other symptoms. She had no risk factors for breast cancer.

Physical examination of the left breast revealed a mobile, firm painless lump measuring 4x3x3cm with lobulated margins. The mass had no adhesion to the skin. There was no nipple retraction, skin thickening or axillary lymphadenopathy. Physical examination was otherwise normal. The clinical diagnosis was consistent with a fibroadenoma or a complex cyst in the breast. FNAC from the breast lump was inconclusive and a clear cellular fluid was obtained. Other hematological test was

noncontributory. Following FNAC, size of lump remained unchanged and excision biopsy was performed.

Grossly, the mass was 5 cm in diameter, cystic, with fibrofatty tissue attached (fig.1). On sectioning, a laminated membrane was seen at the site of the mass. The mass contained a clear yellowish thick fluid and has a dense surrounding fibrocollagenous wall. Histologic examination revealed the diagnostic hooklets, laminated membrane (fig.2) which confirmed a primary hydatid cyst of the breast. Post-operative ultrasonography of the contralateral breast and abdomen, as well as chest radiogram was normal to rule out any dissemination in other organs. The patient

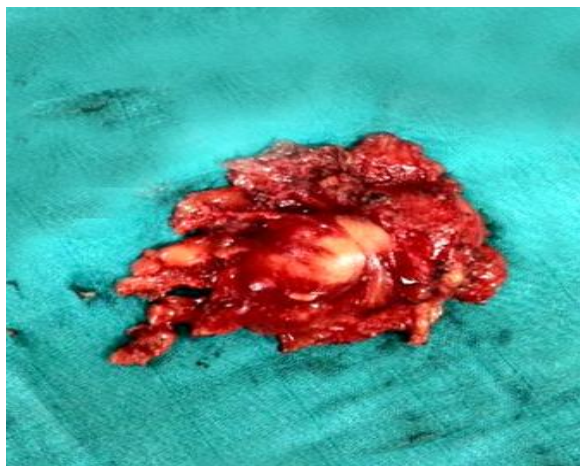


Figure 1: Excised Specimen of Hydatid Cyst of Breast.

The breast can be the only primary site or part of disseminated hydatidosis. Typically patient presents with painless breast lump, which increases in size without regional lymphadenopathy. It generally affects women between 30-50 years of age. It might mimic fibroadenoma, phyllodes tumour, chronic abscess or even carcinoma.⁽⁴⁾ In our patient, the clinical findings were nonspecific and our pre-operative diagnosis was a fibroadenoma or a complex cyst in the breast.

was treated with albendazole for two months. She remained free of any recurrence 6 months after surgery.

DISCUSSION

Hydatid cysts are caused by larval tapeworm of the genus *Echinococcus*. *E.granulosus* is the most common species, but *E.multilocularis* and *E. vogeli* also infect man. The disease is a serious problem in sheep and cattle raising areas, particularly Australia, New-Zealand, the Middle East, Mediterranean countries, Africa and South America.⁽¹⁾ Hydatid disease of the breast is extremely rare, accounting for only 0.27% of the total incidence.^(2,3)

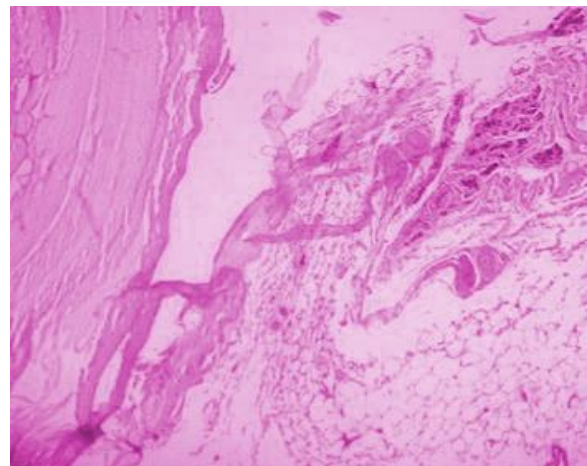


Fig. 2: Histological Section of Eosinophilic Laminated Membrane.

The diagnosis of hydatid disease of the breast based on results of FNAC has previously been reported. FNAC may show the laminated membrane or diagnostic hooklets.^(1,3) No anaphylactic or urticarial reactions have been reported as a complication of this procedure, but the risk of contamination should always be kept in mind.⁽⁵⁾ FNAC usually provides the pre-operative diagnosis, although mammography, ultrasonography and serologic tests can also be done. Mammography usually shows a nonspecific

circumscribed, homogenous mass with smooth margin. Characteristic ring-shaped structures inside the mass can be seen in over penetrated views as previously described.^(2,3) Depending on the literature, the mammographic signs of breast Echinococcus are non-specific and are similar to those of other benign lesions like fibroadenoma or cyst.^(2,3) In our patient, we did not perform mammography. The sonographic appearance of a mammary hydatid cyst is variable and depends on the age and complications of the cyst. Radiologic means can diagnose the disease but are not definitive, and can be inconclusive. Indirect hemagglutination tests may help to confirm the diagnosis.^(2,3) Abdominal ultrasonography and a plain chest radiography are mandatory to exclude liver and lung involvement.

Surgery is still the most effective therapy for hydatid breast.⁽⁶⁾ Complete excision with avoidance of spillage of content of the cyst is the treatment of choice. Fine needle aspiration of the cyst fluid and its replacement with a scolicidal agent with combination therapy with albendazole can be an effective alternative treatment to surgery.⁽⁷⁾ Albendazole treatment has been shown to reduce the incidence of recurrence.⁽⁸⁾

CONCLUSION

Despite its rareness, hydatid breast should be considered as a differential

diagnosis of breast lumps particularly in areas endemic for the disease.

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