

CASE REPORT

Primary Hydatid Cyst of Breast: A Case Report

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ABSTRACT

Hydatid cyst is a disease which is caused by the larval form of *Echinococcus granulosus* and seen endemically among sheep-raising communities. The larvae penetrate the bowel mucosa and arrive in the liver via the portal vein. Most common sites of cyst formation are liver and lung and 10% in other organs. Hydatid cyst of the breast accounts for 0.27% of all cases only. We report a case of 35 year old female presented to the surgical OPD with complaint of lump in left breast since 5 years, there was no other associated complaint. Fine needle aspiration cytology revealed features of hydatid cyst, the lump was subsequently excised under local anaesthesia.

Key words: Hydatid disease, breast lump, Echinococcosis

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. The larvae penetrate the bowel mucosa and arrive in the liver via the portal vein. Seventy percent 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 cases¹. Our case presented only with a breast lump and no features of a liver or lung cyst.

CASE PRESENTATION

A 35 year old female presented to surgical OPD with complaint of a breast lump, it was 3×4cm in size, painless and non-progressive, no nipple discharge or skin ulceration. Lump was not fixed to underlying muscle or overlying skin. There was no associated lymphadenopathy.

General physical examination was unremarkable. Routine blood investigations were normal.

Fig.1. Shows endocyst after removal of cyst**Fig.2. Shows amorphous laminated chitinous material beside normal breast tissue**

Chest x ray was grossly normal. FNAC shows laminated membranes along with hooklets. Cytological features are consistent with hydatid cyst. Patient underwent excision of lump under local anaesthesia. Sample was sent for analysis. Biopsy was suggestive of hydatid cyst of breast.

DISCUSSION

Echinococcus granulosus is a 3-6 mm length parasite of which the most important definite host is the dog. The parasite can also live in the bowels of cats, wolves, foxes and other carnivorous animals. *Echinococcus granulosus* does not affect the health of these host animals. The eggs are scattered throughout the environment by their faeces. Released eggs may pass to intermediate hosts via contaminated vegetables and grass. The intermediate hosts are domestic animals such as sheep and cows. Humans can become contaminated with *Echinococcus* eggs via food intake. If a cyst ruptures, it may cause an anaphylactic reaction and lead to the development of many new hydatid cysts.

Mammographic findings are the ring-shaped structures in the breast, indistinguishable from other tumoral masses². The thicker and calcificated cyst wall prevents differentiation from simple cysts. Ultrasonography is more specific than mammography in identifying a hydatid cyst. MR imaging can help differentiate a hydatid cyst from malignant tumours, but cannot exclude infected cysts or breast abscesses.

Fine needle aspiration cytology can enable accurate diagnosis by identification of the hooklets, scolices and certain parts of the laminated membrane³. However, needle aspiration can cause a leakage from the cyst and can lead to parasitic dissemination and development of many new cyst formations or serious anaphylactoid reaction⁴.

Surgical removal without spillage is the best method of treatment for hydatid cyst. However, recurrent cysts have been reported postoperatively in 10% of patients. Albendazole may decrease the recurrence rate of hydatid cyst disease.

CONCLUSION

Hydatid disease may rarely present as a breast lump especially in endemic areas, where it needs to be differentiated from benign and malignant breast diseases. In our case FNAC of the lump certified the diagnosis and decided the management.

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