

Hydatid Cyst of breast- A case report



Medical Science

KEYWORDS : Hydatid cyst, benign lesion, Fine Needle Aspiration Cytology

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ABSTRACT

Hydatid cyst of breast is a rare benign lesion which occurs in only 0.27% of cases. Hence, we report a case of left breast lump in a 42 yrs old female patient. The patient presented with a lump in left breast for last 3 yrs measuring 7 cm in dia. Fine Needle Aspiration cytology was performed which showed hooklet and scolices of hydatid cyst. The mass was surgically excised under general anaesthesia and sent for histopathological examination. On gross and histopathology, it was reported as hydatid cyst of breast. No complication was observed postoperatively. Hence, the differential diagnosis of hydatid cyst of breast should always be kept in mind in case of cystic lesion of breast.

Introduction:

Hydatid cyst is a parasite disease caused by Echinococcus granulosus larvae. The larval cysts are most commonly found in the liver (70%), liver (25%) and 10% in other organs such as pancreas, gall bladder, spleen, kidney, brain, thyroid and breast.

The breast is a rare primary site of hydatid disease and accounts for only 0.27% of cases. (1) Upto 1994 only 54 hydatid cysts of breasts had been reported in the literature. (2) The largest series of 20 hydatid cyst of breast was reported in Tunisia (2).

Case report: A 42 yrs old woman presented with left breast painless lump since 3 yrs which as gradually increasing in size. Physical examination showed lump measuring 7cm in dia in lower outer quadrant of left breast which was firm and non tender, immobile and adherent to underlying tissue with normal overlying skin and nipple. There was no skin retraction or skin thickening. There was no palpable lymph node in the left axilla. The right breast and axilla were normal and systemic examination did not reveal any abnormality. Investigations showed normal complete blood count, chemistry, chest X-ray and abdominal ultrasound. The breast ultrasound showed a multicystic lesion in the left breast. Fine needle aspiration cytology showed multiple hooklets and scolices which was suggestive of hydatid cyst of breast. The mass was excised under local anaesthesia. Macroscopically, the mass was full of multiple membranous grapes like vesicles and gelatinous fluid. (Fig 1)



Fig 1: Gross examination showed grape like vesicles

The histological examination revealed lamellated membranous cuticles and germinative layer with brood capsule and scolices. (Fig 2 & 3) CT scan does not show any other lesion in any organ. The patient was treated with albendazole for two months. No

complications were observed postoperatively.

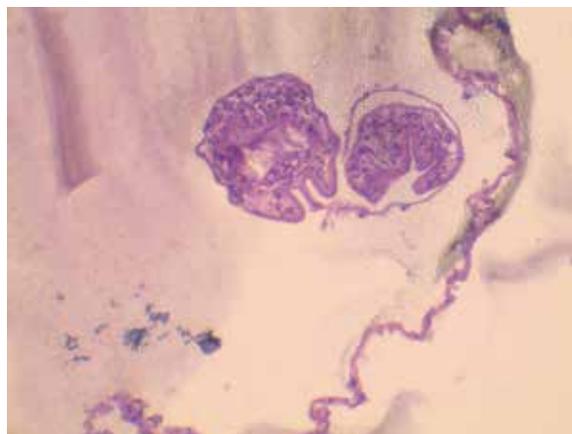


Fig 2: Scolices with brood capsule

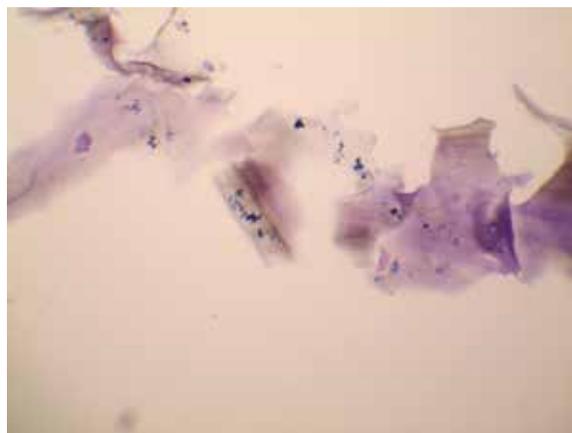


Fig 3: Lamellated membrane on cut section.

Discussion:

Hydatid disease is a parasitic infection caused by several species of cestode Echinococcus. The adult E. Granulosus is a 3-6mm long 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. E. 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 the intermediate hosts via contaminated vegetables and

grass. The intermediate host is domestic animals such as sheep and cows. Human can become contaminated with *Echinococcus* eggs via food intake. The eggs penetrate the intestinal mucosa and enter the portal circulation. The liver acts as a first filter and stops about 75% while lungs, the second filter stops about 10%, and only 15% embryo are free to develop cysts in other organs of the body. (1,3,4,5)

According to Barret and Thomas, 60% of the cysts are found in the liver, 30% in lungs, 2.5% in kidneys, 2.5% in heart and pericardium, 2% in bone, 1.5% in spleen, 1% in muscle and 0.5% in brain (6,7). The embryo usually develops into the unilocular cyst. (1) Whereas our lesion was a multilocular cyst. Hydatid cyst of breast is rare and accounts for only 0.27% of cases.

It generally affects women between 30-50 yrs of age and our case is of 42yrs of age.

Differential Diagnosis: It might mimic fibroadenoma, phylloides tumour, chronic abscesses or even carcinoma. So breast hydatid cyst should be included in differential diagnosis of breast lumps especially in endemic areas. (1) Preoperatively diagnosis can be made by fine needle aspiration cytology where scoleces, hooks or laminated membranes can be identified. (2) It is a safe procedure, as no complications were mentioned in the literature. (1) The disease can be diagnosed by radiologic or serologic means both of which are not definitive. Mammogram may show a circumscribed mass, the characteristic ring shaped structures inside the mass in over penetrated view strongly suggest breast hydatid cyst. The ultrasound and MRI are helpful diagnostic tools (8). Serology tests such as intradermal and indirect haemagglutination tests may be used to confirm the diagnosis.

Surgery is the most effective therapy for hydatid disease which exists in any location. In hydatid cyst of breast, total cystectomy is the treatment of choice (4) with total removal of all parasitic elements, avoidance of spillage of contents of the cyst.

Conclusion:

Hydatid cyst is a rare lesion of breast but should be considered in differential diagnosis of breast lump.

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