Case Report

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Pathology Section

Primary Hydatid Cyst of the Breast Masquerading as a Fibroadenoma: A Case Report

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ABSTRACT

Hydatid disease can involve any viscera, but the lung and liver are the two most commonly involved organs. The primary localization of the hydatid cyst in the breast is extremely rare. Here, we are presenting a case of a breast lump, which after surgical excision, turned out to be a case of hydatid disease without the involvement of any other organ. 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 without spillage.

Key Words: Hydatid cyst, Breast, Fibroadenoma

INTRODUCTION

Hydatid disease is caused by the cestode parasite, Echinococcus granulosus, which is primarily found in dogs. Its incidence is higher in countries where sheep are raised, but it is widely prevalent, especially in the Mediterranean countries, the Middle East and in the south American countries [1, 2].

Although hydatid disease can involve any part of the body, the two most common sites which are involved are the liver (70%) and the lung (30%). The breast is a rare location as a primary site for a hydatid cyst [3].

CASE HISTORY

A 32-years old woman presented to our hospital with a painless lump in the left breast of two months duration. Her physical examination revealed a 6x5 cm mass in the lower inner quadrant of the left breast. The mass was firm and mobile and it had a smooth surface. The right breast was normal and there was no axillary lymphadenopathy. The routine chest X- Ray was uncontributory.

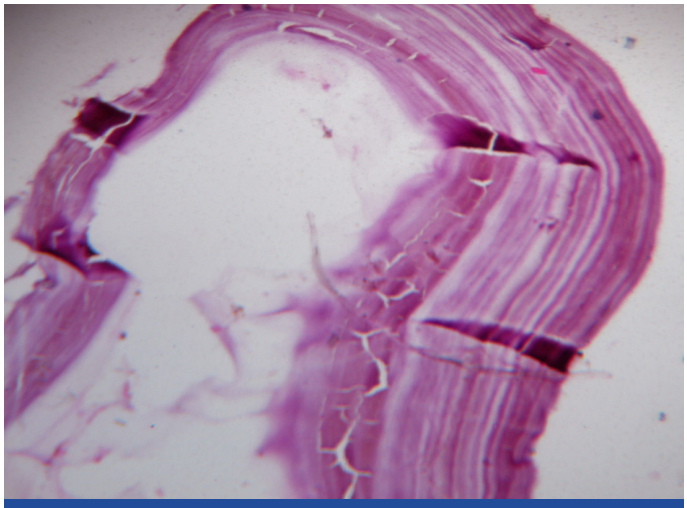
The left breast mass was excised under local anaesthesia. On gross examination, the mass was found to be cystic, with a pearly white membranous wall along with attached fibroadipose tissue.

The histopathological examination revealed hydatid disease. Microscopically, the cyst wall revealed a laminated membranous germinal layer along with multiple hooklets. Scolices were not seen. The attached breast tissue revealed an infiltrate of lymphocytes, eosinophils and histiocytes. Her post operative abdominal ultrasound examination was normal.

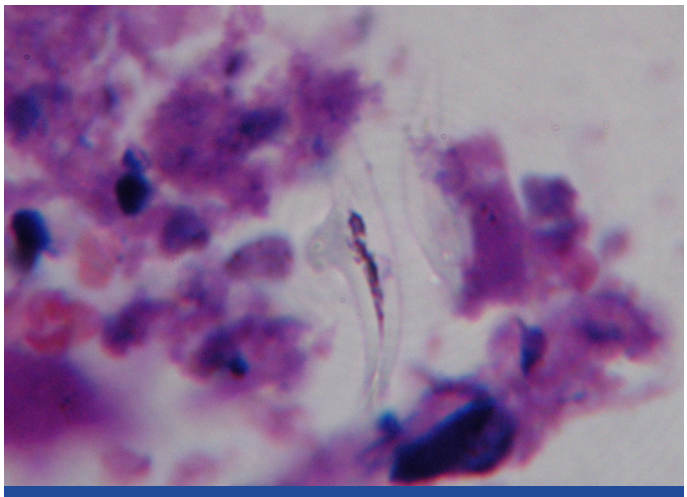
DISCUSSION

The larval form of Echinococcus granulosus is responsible for the hydatid disease. The adult worm resides in the small intestines of dogs. Domestic animals like sheep are the intermediate hosts. Human beings serve as accidental intermediate hosts, who swallow the eggs of Echinococcus granulosus via food intake. Hydatid disease can develop in many organs of the body [4, 5].

In human beings, the hydatid disease is mostly located in the liver and the lung. Hydatid cysts of the breast are seen so rarely,



[Table/Fig-1]: Cuticle of the Hydatid cyst (H&E x 400)



[Table/Fig-2]: Hooklet of the Hydatid cyst (H&E x 1000)

even in endemic areas, that they are generally not considered in the differential diagnosis and can cause serious problems. Hydatid disease of the breast can be a primary localized infection or the breast can be involved because of the systemic spread of the parasite. One retrospective study reported twenty cases of breast

hydatid cysts. The breast hydatid disease constitutes only 0.27% of all the cases [6-8].

The cyst is generally in the form of a palpable and slowly growing painless cystic mass or a lump and it can be confused with fibro-adenoma and carcinoma. When a secondary infection develops, it cannot be distinguished from a breast abscess clinically or by mammography. The diagnosis is usually made during surgery or by histopathologic examination. Mammography and ultrasound are inadequate for diagnosing this disease in the breast. The imaging findings are non-specific and they are inefficient in differentiating the hydatid disease from benign as well as malignant lesions of the breast [6, 9]. Magnetic resonance imaging (MRI) may be more helpful; a well-circumscribed cystic lesion with a capsular enhancement suggests a hydatid cyst, but this appearance resembles a breast abscess on MRI [10].

In our case, fibroadenoma was considered clinically, and a hydatid cyst was not suspected until a histopathologic examination was done.

Fine needle aspiration cytology can help in the early identification of the hooklets and the scolices; however, it can cause an anaphylactoid reaction and parasite dissemination due to the leakage of the infected fluid from the breast [11, 12].

The best treatment modality is surgical removal without spillage. So, in the differential diagnoses of cystic masses which are seen in all the anatomic areas, the possibility of a hydatid cyst must be considered, especially in endemic areas.

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