Cysticercosis of breast: A rare presentation

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ABSTRACT:

Human cysticercosis is the infection caused by the larvae of pork tapeworm *Taenia solium*. Although it can affect any organ or tissue of the body, the most common sites are the muscles and subcutaneous tissue. In this report, we present the case of a 35 yrs old woman who came with a history of a painless lump in the left breast. Clinically diagnosed as a case of 'Fibroadenoma of the Lt. Breast' an excision biopsy was carried out. A histopathological study however revealed the presence of the typical cysticercus larva and a definitive diagnosis of 'Cysticercosis of Lt. Breast' was made. Diagnosis of cysticercosis in atypical sites may be difficult clinically and to a great extent depends on histologic demonstration of the parasite. Also, cysticercosis of the breast though rare, should be considered as a differential diagnosis for a mass in the breast.

Key Words : Cysticercosis, Breast.

INTRODUCTION:

Human cysticercosis is the infection caused by the larvae of pork tapeworm, *Taenia solium*. It can be found throughout the world, although it has its greatest prevalence in Mexico, other areas of Latin America, India, China, Africa and Europe.¹ Cysticercosis can affect any organ or tissue of the body, the most common sites in order of frequency being the subcutaneous tissue, breast, brain, muscles, heart, liver, lungs and peritoneum.² Involvement of breast, as in this case, is a rare presentation.

measured about 3cm x 2.5cm in size. There was no associated axillary lymphadenopathy. The other breast was normal. A provisional diagnosis of Fibroadenoma of left breast was made, an excision biopsy carried out and sent for histopathological study.

CASE REPORT:

A 35 Year old female, presented with a painless swelling in the left breast, of one year duration. During this period there was no appreciable increase in its size. On examination, the mass in the left breast was nontender, firm, freely mobile and

Fig. 1

Section showing Cysticercus larva-(H & E x 25)

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Pathology: Grossly, the specimen consisted of a spherical cystic mass measuring 0.7 cm in diameter. Cut section showed a cyst containing white mucoid material and clear fluid. Microscopic sections showed a cyst containing the typical cysticercus larva with deep notches in the body wall (Fig.1). The surrounding cyst wall was lined by sheets of histiocytes and showed lymphocytic infiltration in the fibrous tissue around. Fat was also seen (Fig.2). A diagnosis of 'Cysticercosis of the left breast' was made.

Fig. 2

*Part of cysticercus larva within the cyst wall
(←) showing inflammatory cells.
Fat is seen adjacent to it. (H & E x 25)*

DISCUSSION:

It is a well known fact that the larvae of *Taenia Solium* (*Cysticercus cellulosae*) most commonly encyst in the muscles of pigs and man acquires infection by ingestion of raw or insufficiently cooked 'measly' pork.³ In such cases man acts as the definitive host and harbours the adult tape worm. Cysticerci can also develop in man in two sets of circumstances: (1) eggs of *T. solium* may occasionally be ingested accidentally as a result of faecal contamination of fingers, food etc, in which case vegetarians can also suffer from this condition, (2) reverse peristalsis may cause tapeworm segments containing eggs to be regurgitated into the stomach. The eggs then hatch in the stomach, the embryos penetrate the wall of the intestine with the aid of their embryonic hooks and are carried in the blood to various parts of the body where they develop into cysticerci.⁴

Although cysticerci can develop in any organ or tissue of the body, the sites most commonly affected are the subcutaneous tissue, brain, muscles etc. The effects are serious when they occur in the central

nervous system and the eye.⁵ Unless they are present in large numbers or in vital centres they are most often discovered incidentally during investigations for other diseases. Though documented earlier, the breast is a rare site for the occurrence of cysticercosis.⁶ In this particular case, an initial diagnosis of Fibroadenoma of breast was made due to its typical features of a painless, firm and freely mobile mass. Thus diagnosis of cysticercosis in unusual sites may be clinically difficult. It may be established by the recovery of whole cysticerci or the histologic demonstration of the cysticerci in surgically removed tissues. Radiologically it can be detected by X-ray visualisation of calcifying cysticerci and by the use of computerised tomography.¹ Indirect methods of diagnosis include serological tests like Indirect haemagglutination, Complement fixation test, Indirect immunofluorescence and ELISA.⁴

This case report emphasizes the fact that Cysticercosis of the breast should be considered as a differential diagnosis in optic livers of breast especially in areas of greater prevalence.

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