

## Case Report:

### Cysticercosis of breast: a rare encounter

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#### ABSTRACT

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Human cysticercosis is caused by larval stage of *Taenia solium*. Any organ or tissue may be involved, the most common being subcutaneous tissue and muscles. Breast is an unusual site for cysticercosis and only few cases have been reported in the literature. Herein we report a case of cysticercosis of breast in a 36 year-old woman which mimicked a fibroadenoma. Though rare, cysticercosis should be considered in the differential diagnosis of a breast lump.

**Key words:** *Cysticercosis, Breast*

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#### INTRODUCTION

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Cysticercosis is caused by cysticercus cellulosae, larval stage of *Taenia solium*. Though any organ or tissue may be involved, breast is an unusual site for cysticercosis. It is either diagnosed incidentally or patient presents with a breast lump.<sup>1,2</sup> The possibility of cysticercosis should be considered in the differential diagnosis of a breast lump. Though imaging modalities help in diagnosis, histopathological examination is confirmatory.

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#### CASE REPORT

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A 36-year-old woman presented with a painless lump in her left breast of one year duration. There was no discharge from the nipple. There were no complaints pertaining to any other organ or system. On examination, a freely mobile lump measuring 2×1.5 cm was detected in the upper outer quadrant, which was non-tender and firm in consistency. Right breast was normal. Axillary lymph nodes were not palpable. A clinical diagnosis of fibroadenoma was made and the patient underwent excision

biopsy of the lump. Intraoperatively a spherical cystic mass that measured 1 cm in diameter was seen. On sectioning, a mural nodule 3 mm in size was found along with serous fluid. Histopathological examination revealed typical cysticercus larva (Figures 1 and 2) confirming the diagnosis of cysticercosis of breast. The patient was advised antihelminthic therapy. The patient denied history of consuming pork.

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#### DISCUSSION

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Cysticercosis is caused by larval form of *Taenia solium* (pork tapeworm). Man is the only definitive host and pigs are the usual intermediate hosts although dogs, cats and sheep may harbor the larval form. Human infection is usually due to ingestion of improperly cooked pork and rarely due to contamination of food or water with eggs. Prevalence of the disease is believed to be high in Nepal and India, more so in North than South India.<sup>3</sup>

Cysticercosis though common in skeletal muscle, subcutaneous tissue, brain and eye is

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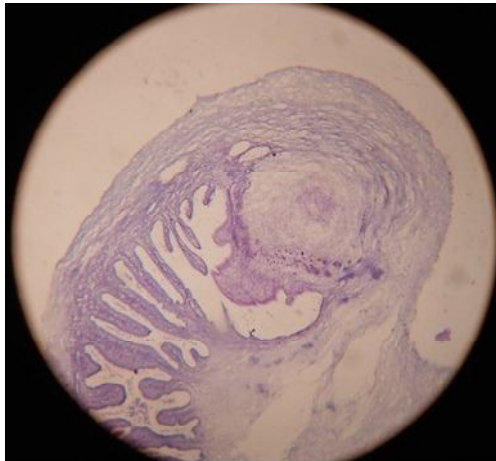
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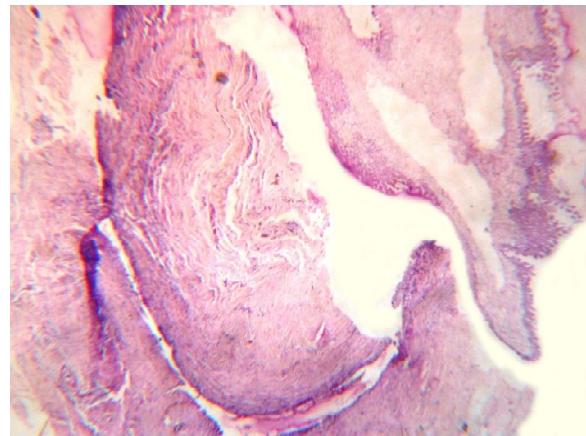
**Figure 1:** Photomicrograph showing cysticercus cellulosae larva; coelomic cavity can be seen (Haematoxylin and eosin,  $\times 60$ )

unusual in breast. Only few such cases have been reported in the literature.<sup>1,2,4</sup> In a large series (n=62) of histologically confirmed cases of cysticercosis reported from Nepal,<sup>5</sup> only five were located in the breast. On literature search, a case of cysticercosis of breast confirmed by histopathology was reported from South India.<sup>6</sup>

Cysticercosis of breast may present as a breast lump. Chest radiograph and computed tomography (CT) help in detecting calcified cysts. CT is useful in detecting and evaluating specific stages of cysticercosis.<sup>7</sup> High frequency ultrasonography is a relatively inexpensive, readily available and reliable imaging modality for diagnosis of soft tissue cysticercosis.<sup>8</sup> Diagnosis on fine needle aspiration is possible when some parasitic structures like larval cuticle and parenchyma are seen in the smear. In other cases, presence of eosinophils, histiocytes and a granular, dirty background should raise the suspicion of a parasitic infection. Confirmation of diagnosis is by histological demonstration of the parasite.<sup>9</sup>

Our case presented with a breast lump and was clinically diagnosed as fibroadenoma. As she denied history of pork consumption, eating contaminated raw vegetables or fruits could have been the mode of infection.

Though cysticercosis of the breast is a rare entity, it should be considered in the differential



**Figure 2:** Photomicrograph showing cyst wall of parasite. Outer cuticle covered by microvilli with adjacent host tissue can be seen (Haematoxylin and eosin,  $\times 100$ )

diagnosis of a breast lump. Since cysticercosis is a preventable disease health education may help to reduce the disease burden in endemic areas.

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