

Cysticercosis of Breast Mimicking Fibroadenoma: A Case Report

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ABSTRACT

Cysticercosis is a parasitic infestation which can affect various structures of human body .Clinicians and pathologists need to be aware of its unusual presentations to identify and detect it an earlier stage to differentiate from other conditions which can have similar clinical and pathological presentations. Various pathological techniques such as fnac [fine needle aspiration cytology] and biopsy can aid in diagnosis facilitated by serological, radiological techniques such as X -ray, ultrasonography ,CT /MRI Scan. The early and prompt diagnosis by proper clinical suspicion supplemented by pathological examination helps in the management of the condition. In this study we present a unusual and rare presentation of cysticercosis of breast .

Keywords: *Cysticercus ,Fnac ,Biopsy,Diagnosis ,Ultrasonography,CT Scan ,MRI Scan,Breast*

1. INTRODUCTION

Cysticercosis, is caused by larval stages of taenia solium, which grow slowly and attain their normal size of 1 cm. The tissues preferred by cysticercus are sub cutaneous tissues, skeletal muscle, fascia, brain, eye with presentation as painless small nodule, but no particular significance is given to the finding, unless it is located near the eye, the lips, breasts, genital organs¹. Cysticercus, may be resorbed, (or) become fibrosed and calcified (or) more importantly produce an inflammatory reaction². The clinical severity depends upon the location involved with central nervous system showing wide changes having clinical impact³. The diagnostic modalities too depend upon the location involved in the body with techniques such as fnac, biopsy and x ray, ultrasonography preferable for soft tissue cysticercosis^{4,5} while neurocysticercosis diagnosis is made based upon endemic or non endemic background of patient. In non endemic areas symptomatic patients can be subjected to MRI or CT scan while MRI having an edge over CT scan in identifying intraventricular cysts⁶ and serological methods are preferred in endemic disease with enzyme-linked immunoelectrotransfer blotting (EITB)⁷ while extra parenchymal lesion is diagnosed by specific ELISA⁸.

2. CASE PRESENTATION

45 Year female, presented with lump in upper outer quadrant of right breast since 1 Month. On local examination soft to firm 1 cm, mass is felt in upper outer quadrant of right breast which is movable and is non tender, no warmth, no redness on palpation. On general physical examination, nothing abnormally is detected. The surgeon ordered routine laboratory tests like complete blood picture, complete urine examination, and chest x ray which were all within normal limits. The surgeon made a diagnosis of Fibroadenoma of Breast in right side and then excised the mass and subjected it to histopathological examination.

Histopathology examination

Gross examination- Single irregular gray white tissue 1.5cm [all embedded]

Microscopic examination- Adipose tissue with granulomatous reaction, in the middle of which are scolices, proglotids of cysticercus with fibrosed wall

Diagnosis- Cysticercosis of Right Breast

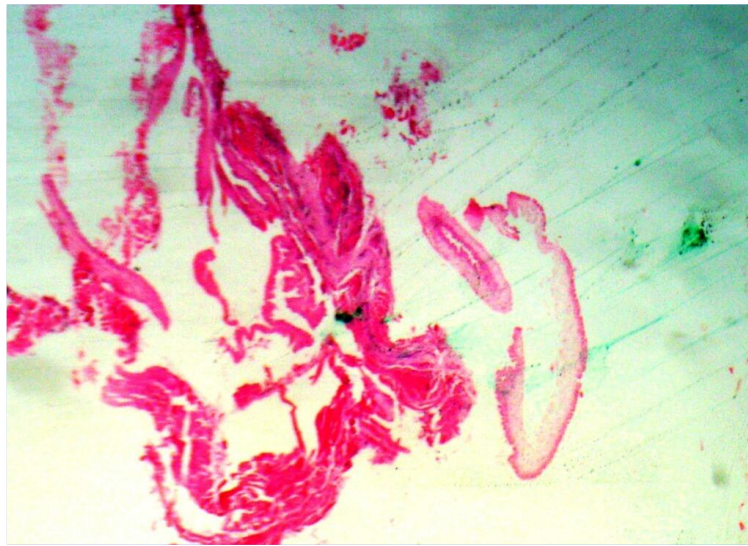


Figure 1 shows low power view of cysticercosis with scolices ,proglatids and fibrosed wall

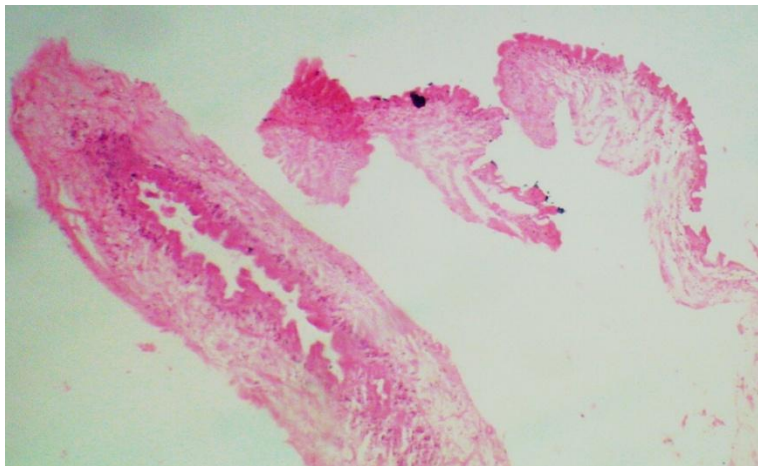


Figure 2 shows high power view of cysticercosis with proglatids ,scolices and fibrosed wall

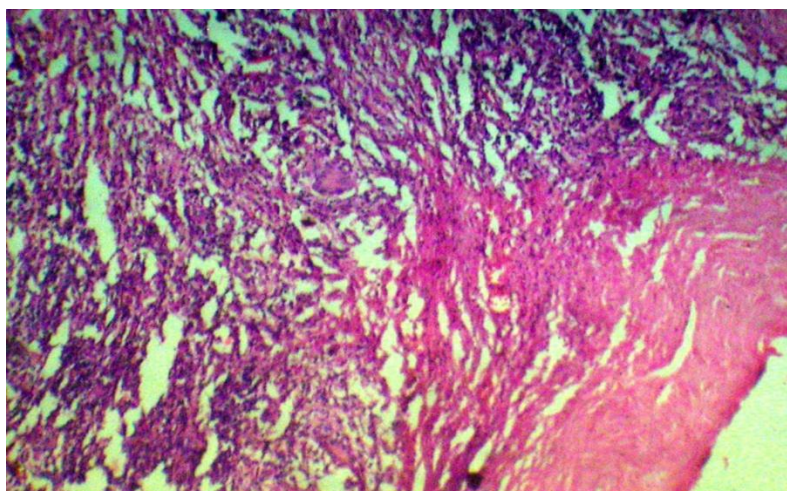


Figure 3 shows adipose tissue with granulomatous reaction, in the middle of which are scolices, proglatids of cysticercus with fibrosed wall

3. DISCUSSION

The most common location of cysticercosis is its subcutaneous location which presents as movable painless palpable swellings on the arms, chest and can be diagnosed by fnac [fine needle aspiration cytology]. The subcutaneous location is most commonly seen in Asia and Africa but rare in Latin America where neurocysticercosis is common⁹. Muscle involvement can mimic various tumors such as leiomyoma or lipoma and can present as myalgia, nodules and pseudohypertrophy and high resolution ultrasonography is helpful¹⁰. Sometimes subcutaneous cysticercosis can be misinterpreted as histiocytic tumor on cytological exam, which was confirmed as cysticercosis on biopsy exam, prompting the role of biopsy in confusing cases¹¹. Study has suggested the role of Fnac in subcutaneous nodules and cysticercosis should be included in differential diagnosis of nodular lesions¹². In a study involving case series of cysticercosis of soft tissue it was revealed that most common site is muscle [52.4%], while least common site is breast [4.7%]¹³. High prevalence of cysticercosis is noted in northern parts of India due to inherent risk factors for transmission of disease¹⁴. A rare case report of cysticercosis of breast was reported from India which on ultrasonography and fnac was inconclusive while excision biopsy has confirmed the diagnosis which presented grossly as yellow white nodule with central cystic change¹⁵. In a series of cysticercosis of breast published in literature it was revealed that out of total 13 cases reported so far 8 cases were diagnosed based on Fnac while only 2 cases were diagnosed by Ultrasonography and rest were diagnosed by biopsy¹⁶.

Conclusion- Isolated cysticercosis of breast is rare and uncommon observation and in endemic areas high index of suspicion is needed which should prompt for Fnac of the breast mass to arrive at proper diagnosis and clinical management of case.

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