



CYSTICERCOSIS OF TONGUE- A COMMON LESION IN AN UNCOMMON SITE

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Article Info	ABSTRACT
<p>Received 27/02/2016 Revised 16/03/2016 Accepted 25/03/2016</p> <p>Key words: Cysticercosis, taenia solium, tongue</p>	<p>Cysticercosis is a common parasitic disease caused by Pork Tapeworm (Taenia Solium). When cysticercosis involves central nervous system, it becomes a fatal disease. Oral Cysticercosis is rare and often causes difficulty in clinical diagnosis. We are presenting a case of 52 years male presenting with tongue swelling since one year. Clinical diagnosis was mucous retention cyst. Surgical excision was done. Histopathological diagnosis of Cysticercosis was given. This case is being presented owing to the rarity of site.</p>

INTRODUCTION

Cysticercosis still persists as a major public health problem in the developing countries. This word is derived from Greek kystis i.e cyst and kerkos, tail because of their appearance [1]. Though there is abundant muscular tissue in oral and maxillofacial region, Cysticercosis does not occur often in these sites. Only around sixty five cases have been reported in this region [2]. Most of the oral lesions appear as asymptomatic submucosal nodule, few cases also show multiple oral involvements. Both genders are nearly equally affected [3]. Only about 34 cases of cysticercosis presenting as mass in tongue have been reported in literature [4].

CASE HISTORY

52 years male presented with anterior tongue swelling since one year, painless, firm, gradually increasing in size but with no restriction of tongue movements and no abnormal sensation. No lymphadenopathy was seen in head and neck region.

Clinical diagnosis was mucous retention cyst. Surgical excision was done and sent for histopathological examination. Grossly it was a cystic mass measuring 1.5 x1 x 0.5cm. External surface was grey white, cystic. Cut surface showed unilocular cystic cavity containing gelatinous material. Microscopy showed a capsule surrounding a cystic cavity containing cysticercus cellulosae i.e. larval form (Figure 1). The larva was composed of scolex, where a sucker could be identified and a duct like invaginated segment i.e caudal end. Larva and cystic structure were lined by a homogenous eosinophilic membrane. The surrounding tissue showed inflammatory cell infiltrate comprising of eosinophils, lymphocytes and plasma cells (Figure 2). Histopathological diagnosis of cysticercosis was given.

DISCUSSION

Human cysticercosis is an infestation by the larval stage of Pork tapeworm Taenia solium. It is common in



developing countries where crowding, poor sanitation allows fecal contamination of food and water. Normally humans are definitive hosts for *Taenia solium*. Life cycle begins with infestation of viable larvae in inadequately cooked pork.

Human beings usually acquire the infection by oral route through the hands of carriers of adult worms, or by regurgitation of eggs into stomach after reverse peristalsis. Clinical symptoms depend on number of cysts, tissue affected and reaction of tissues to organism. The common organs affected are central nervous system, eye, subcutaneous tissue, skeletal muscle and heart and occasionally lungs, liver and kidney.

Diagnosis of Cysticercosis is made by serology or by surgical biopsy of at least one lesion and exclusion of epidermoid cysts, lipoma, granular cell tumor and malignant tumors. Computerized tomography (CT) and magnetic resonance imaging (MRI) is needed to diagnose cerebral Cysticercosis. Parasitological examination is more reliable in revealing *Taenia solium* eggs in the stool sample. Immunodetection of Cysticercosis can be done in serum, cerebrospinal fluid and saliva by ELISA (Enzyme linked immunosorbent assay) or EITB (Enzyme linked immunoelectrotransfer blot). EITB has higher specificity and sensitivity as compared to ELISA in diagnosing Cysticercosis.

Histopathological examination is helpful in diagnosis of Cysticercosis by detection of cystic space which contains the Cysticercosis cellulosae. Scolex has four suckers and a double crown of rostellar hooklets. Caudal end is composed of a duct like invaginated segment, lined by a homogenous anhistic membrane. The

eosinophilic membrane lining the capsule is double layered consisting of an outer acellular and inner sparsely cellular layer. After three to five years, larva dies and cyst undergoes calcification [2]. In our case, classical histopathological features were present.

In cases of Cysticercosis, there is high incidence of involvement of multiple foci; hence every case of Cysticercosis should be thoroughly investigated. It is important to consider the diagnosis of cysticercosis in oral solitary nodular lesions presenting in patients living in endemic areas like Latin America, Southern Africa, India, Southeast Asia and Europe [5]. In our case, the histopathological features being clear cut, serological testing was not done. Differential diagnosis of oral Cysticercosis depends on site involved. In this case where it was solitary nodule on the tongue, differential diagnosis to be considered are schwannoma, neurofibroma, granular cell myoblastoma, vascular neoplasm, fibroma, leiomyoma and lipoma [2].

Treatment depends on clinical symptoms and accessibility of the lesion. Drugs like Praziquantel and Albendazole are used in the treatment of neurocysticercosis and multiple cysts. For solitary accessible lesions, the treatment of choice is surgical excision. In our case, the lesion being in tongue, surgical excision was done. Patients should undergo regular follow-up for occurrence of any symptoms related to future ocular and cerebral cysticercosis [6].

To conclude, the possibility of infestation by this parasite though rare has to be considered in the differential diagnosis of subcutaneous as well as intramuscular cystic swellings in various parts of human body including tongue.

Fig 1. H&E, 4X, showing cysticercus cellulosae, the larval form of *Taenia solium*

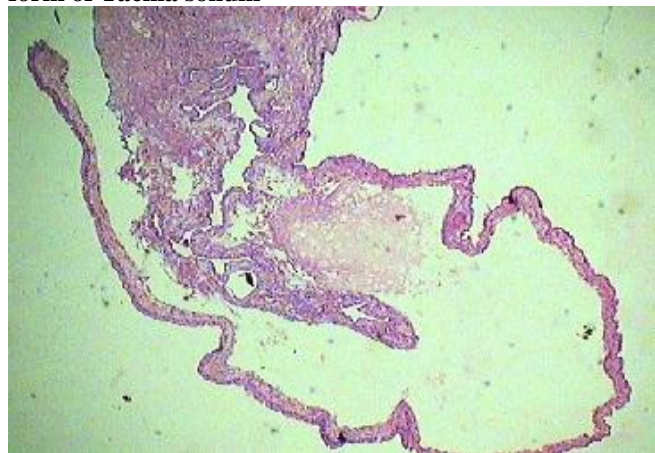
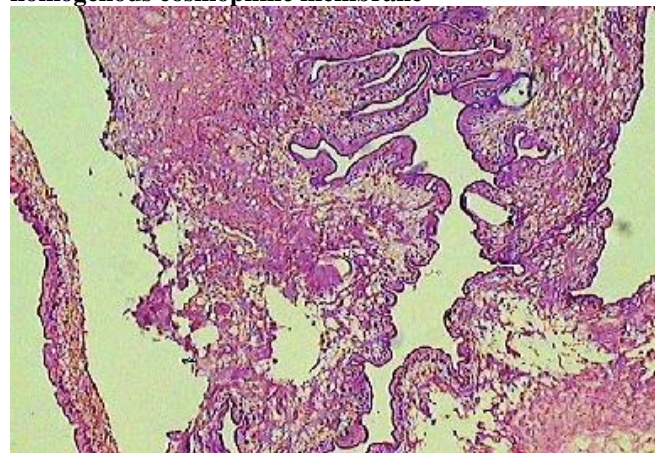


Fig 2. H&E, 10X, showing *Taenia solium* larva lined by a homogenous eosinophilic membrane



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Nil

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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