

Case Report

Isolated lingual cysticercosis: a rare case report

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ABSTRACT

Taenia solium completes its life cycle in two hosts. Generally, cysticercosis results from accidental ingestion of the eggs of *taenia solium* through faeco-oral contamination or autoinfection. Cysticercosis is commonly found in muscular and subcutaneous tissues. Central nervous system and eye are commonly affected. Despite abundant intermuscular tissue in oral cavity, it is uncommon site for cysticercosis because of high muscular activity and metabolic rate of oral tissues. We present a case of a 21-year-old male, presented with painless solitary swelling in the ventral aspect of tip of tongue at the centre. Excision of the swelling was done followed by histopathological examination. The histopathological examination revealed cysticercosis cellulosae in tongue musculature. Histopathological picture showed cysticercus larva surrounded by a double layered membrane. The patient was given albendazole 200 mg TDS for 30 days. One-year follow-up showed no signs of recurrence. Lingual cysticercosis usually presents as diagnostic dilemma. Complete excision along with histopathological examination is diagnostic. Infestation in this region is relatively mild as compared to ocular or neurocysticercosis. However, the patients should be examined thoroughly and followed up for possible concurrent ophthalmologic and neurologic involvements as well.

Keywords: Cysticercosis, Lingual, Oral cavity, *Taenia solium*

INTRODUCTION

Taenia solium passes its life cycle in two hosts. The definitive host is human and harbours the adult worm. Larval stage is harboured by intermediate host which is pig.¹ Human beings are infested via eating undercooked contaminated pork or infected vegetables. It becomes adult tapeworm in the jejunum.² The worms shed gravid segments along with eggs in the stool; which reinfect pigs and completes the cycle. Generally, cysticercosis results from accidental ingestion of the eggs of *Taenia solium* through faeco-oral contamination or autoinfection.³ Therefore, even vegetarians and other people who do not eat pork can acquire cysticercosis. The common sites of cysticercosis are skeletal muscles, subcutaneous tissues, and brain.^{3,4} The involvement of the central nervous

system causes severe symptoms and can be potentially life threatening.⁵ Lingual cysticercosis is very rare and not suspected for an isolated swelling over the tongue. Most often, it presents as diagnostic dilemma for the clinicians. Literature review has quoted only 34 cases of lingual cysticercosis till date.⁶

CASE REPORT

A 21-year-old male, presented with painless solitary swelling in the ventral aspect of tip of tongue at the centre (Figure 1). The patient first noticed the swelling 6 months back and was gradually increasing in size. At the time of clinical presentation, the swelling measured about 1.5×1.0 cm. The swelling was soft to touch and non-tender. The colour of the growth was comparable to that

of the adjacent mucosa. The movements of the tongue were normal. There was no cervical lymphadenopathy. ENT and systemic examination were normal.



Figure 1: Clinical photograph showing the mass at the ventral aspect of tip of tongue.

The lesion was excised completely under local anaesthesia. A number 15 scalpel blade was used for incision, followed by blunt dissection. The whole lesion was excised in-toto. Size of the mass was 1.5×1.0×0.5 cm. Colour was grayish white and surface was smooth, containing whitish fluid. It was sent for a histopathological examination.

The histopathological examination revealed cysticercosis cellulosa in tongue musculature. Histopathological picture showed cysticercus larva surrounded by a double layered membrane. Folding of the spiral canal and sucker of the scolex was clearly seen (Figure 2).

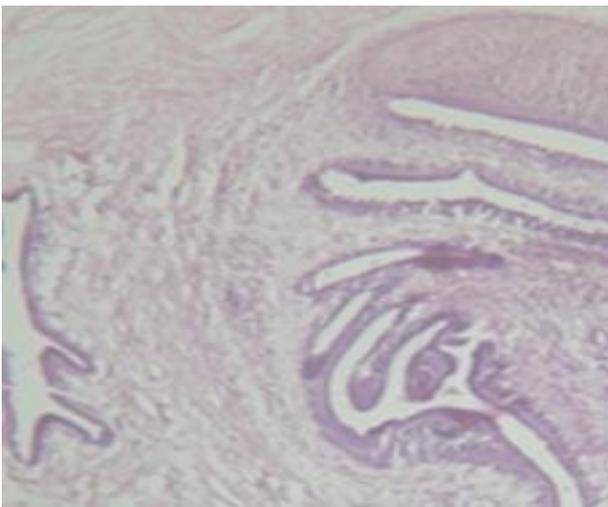


Figure 2: Histopathological picture showing cysticercous larva.

The diagnosis of lingual cysticercosis was thus established and the patient was advised other investigations to rule out the presence of disease in other parts of the body. CT scan brain and chest X Ray were

done which confirmed the absence of disease in the respective sites. The patient was given albendazole 200 mg TDS for 30 days. One-year follow-up showed no signs of recurrence.

DISCUSSION

The life cycle of taenia solium involves human as a definite host and pig as an intermediate host. Risk factors for human cysticercosis include consumption of undercooked pork containing cysticerci, poor personal hygiene and history of passing tapeworm proglotids. Autoinfection may occur if an individual with an egg producing tapeworm ingests eggs derived from his or her own feces. Reports have shown, the prevalence of oral cysticercosis is 4.1%.^{7,8} The most commonly involved intraoral sites are buccal mucosa, tongue, and lips.⁹ Cysticercosis of tongue is rare.⁷

Most of the cases of cysticercosis present as painless, well circumscribed soft swelling that may mimic fluctuant lesions like mucocele. The clinician considered the possibility of benign lesion like fibroma, leiomyoma, dermoid cyst, or a benign lesion of neural origin. Most of the case reports of lingual cysticercosis the diagnosis was established only after histopathological examination.^{5,9} Every case of oral cysticercosis should be thoroughly investigated to determine the involvement of neural as well as extraneural sites.^{7,10} Other investigations in our patient failed to detect any other foci of visceral or neural cysticercosis.

CONCLUSION

In spite of abundance of muscular tissue in the oral and facio-maxillary region, it is a rare site of occurrence for cysticercosis. Lingual cysticercosis may be a diagnostic dilemma. Complete excision along with histopathological examination is diagnostic. Infestation in this region is relatively mild as compared to ocular or neurocysticercosis. However, the patients should be examined thoroughly and followed up for possible ophthalmologic and neurologic involvements.

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