



**CYSTICERCOSIS OF TONGUE - A RARE CASE REPORT AND  
REVIEW OF LITERATURE**

**Deepak Verma<sup>1\*</sup>, Uma Garg<sup>1</sup>, Megha Verma<sup>2</sup>**

<sup>1</sup>Department of otorhinolaryngology, BPS Government Medical College for Women, Khanpur Kalan, Haryana, India.

<sup>2</sup>Megha Verma, Department of Dental surgery, BPS Government Medical College for Women, Khanpur Kalan, Haryana, India.

Corresponding Author:- **Deepak Verma**  
E-mail: [dpkvr20@gmail.com](mailto:dpkvr20@gmail.com)

<p><b>Article Info</b> Received 01/08/2016 Revised 07/08/2016 Accepted 09/08/2016 <b>Key words:</b> Cysticercosis, Taenia solium, Tongue.</p>	<p><b>ABSTRACT</b> A rare case of cysticercosis of tongue is being reported here in an 18 year old female who presented to ENT OPD with a unilateral painless swelling on anterior part of tongue from last 6 months. Excisional biopsy of swelling on histopathological examination revealed cysticercosis. There are only few cases of cysticercosis of tongue reported in the literature. The case is being reported for its rarity.</p>
---	---

**INTRODUCTION**

The word Cysticercus is derived from Greek words Kystis = cyst and Kertos = tail because of their appearance [1]. The pork tapeworm (Taenia solium) is known to cause two different types of infections, with adult tapeworms in the intestine or with larval forms in the tissues (cysticercosis). Humans are the only definitive hosts for T. solium while pigs are the usual intermediate hosts. Humans acquire infections by ingesting undercooked pork containing cysticerci leading to intestine tapeworms. The infections that cause human cysticercosis follow the ingestion of T. solium eggs, usually from fecally contaminated food. Cysticercosis mainly involves intermuscular and subcutaneous tissues and commonly affected organs in humans are central nervous system, eye and skeletal muscles [2, 3]. Oral cavity is not a common site for cysticercus because of high muscular activity of oral tissues in humans, which prevent lodgement and development of cysticerci. But once present, tongue, labial or buccal mucosa and mouth floor are mainly involved areas [4]. We are presenting such rare case of tongue cysticercosis and its management is discussed.

**CASE REPORT**

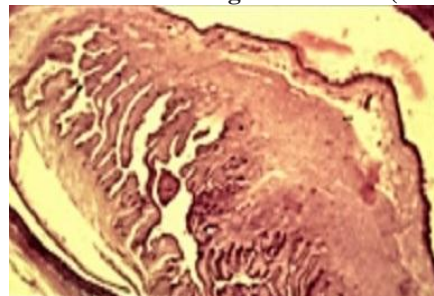
An 18 year old female presented to ENT OPD with a painless swelling on dorsum of anterior part of tongue from last 6 months (Fig 1). There was no history of trauma, fever, dysphagia or excessive salivation. The patient was vegetarian by diet and there was no history of tobacco addiction. On examination the swelling was single, submucosal, firm and nontender on anterior two thirds of tongue. It was around 3cm× 2cm in size. The movement of tongue was normal and there was no cervical lymphadenopathy. MRI showed a well defined cystic lesion in the intrinsic muscles of right half anterior tongue (19×17×14mm). On fine needle aspiration cytology (FNAC) colourless fluid with whitish flakes was aspirated which on cytological examination showed mixed inflammatory response with numerous eosinophils, macrophages, plasma cells and histiocytes. Excisional biopsy of swelling followed by histopathological examination revealed cysticercosis (Fig. 2). Patient was evaluated further including stool examination for ova or cyst and radiological investigations to rule out cysticercosis elsewhere. Patient was kept on tablet albendazole 400mg daily for 15 days. Now patient is on regular follow-up and doing fine without any complaint.



**Fig 1. Showing nodular swelling on dorsum of tongue on (R) side on examination**



**Fig 2. Microphotograph showing cysticercus larva with irregular membrane infolding and scolices (H & E X 40)**



## DISCUSSION

Cysticercosis is a rare infestation in human beings. The manifestations of the disease are different and depend on the location of cysticercosis in the body. The parasite may remain viable for a long period of time depending on the location, type and immunity of host. The death of parasite in tissues cause leak of parasitic antigens into surrounding tissues which can elicit inflammatory reaction in the body. Dead or degenerated parasite is slowly invaded by inflammatory cells, macrophages and finally replaced by fibrous tissue with subsequent calcification [5]. Central nervous system, skeletal muscles and subcutaneous tissues are the commonly affected sites. Among these, oral cysticercosis is rarer and very few cases have been reported in literature [6]. In a large series of 450 cases, Dixon and Lipscomb [7] found oral involvement only in 8 cases (1.8%). Within the oral cavity, tongue is most common site involved [8, 9] followed by the lips and floor of mouth [10, 11]. Oral form usually presents as a painless swelling and easily detected because of their superficial nature in contrast to cerebral cysticercosis which can present as intracranial space-occupying lesion with convulsions and more serious clinical entity [12]. Clinical presentation of intestinal infestation by *Taenia solium* could be asymptomatic or may present with nausea, epigastric pain and loose motions. In the present case various other differential diagnoses kept in mind consisted

of lipoma, fibroma, pyogenic granuloma, haematoma and schwannoma. Since histopathologically it turned out to be cysticercosis, it should be considered as a possibility in any tongue swelling. Surgical excision is the treatment of choice and material should be submitted for histopathology to confirm the diagnosis. This infestation can be prevented by adequate cooking of pork, good personal hygiene, proper fecal disposal and effective treatment of human intestinal infections.

## CONCLUSION

Oral cysticercosis is rare entity and infestation in this area is relatively benign as compared to ocular and neuro-cysticercosis. Most of the cases reported in literature present as a painless asymptomatic mass. Therefore cysticercosis should be kept in mind in any patient presenting with oral swelling. Routine blood examination with eosinophils count, stool examination and radiographic investigation to rule out multiple organ involvement should be a part of clinical conundrum. Excision of swelling is treatment of choice.

## CONFLICT OF INTEREST

No financial interest or any conflict of interest.

## ACKNOWLEDGEMENT

Nil

## REFERENCES

1. Bhandary S, Singh R, Karki P, Sinha AK. (2004). Cysticercosis of tongue-diagnostic dilemma. *Pac Health Dialog*, 11,87-8.
2. Pinswasdi P, Charoensiri DJ. (1997). Cysticercosis in labial tissue. Case report. *Aust Dent J*, 42(5), 319-321.
3. Romero E and Aguirre A. (1995). Oral cysticercosis. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*, 79(5),572-577.
4. Lee KH, Cepeda L, Miller M, Siegel DM. (2009). Mucoceles not – Oral cysticercosis and minor salivary gland adenocarcinoma: two case reports. *Dermatol Online J*, 15, 8.
5. Harrison's Principles of Internal Medicine 13th Edition, volume 1, 184, 931-932.
6. Lustmann J and Copelyn M. (1981). Oral Cysticercosis. *Int. J. Oral Surg*, 10,371-375.
7. Dixon HB, Lipscomb FM. (1961). Cysticercosis: An analysis and follow up of 450 cases. *Med Res Council Special Rep Series*, 299, 1.
8. Bedi TR, Pandhi RK, Bhutani LK. (1974). A case of cysticercosis cellulosa involving the oral cavity. *Int. J. Dermatol*, 13,188-189.
9. Lafont AH and Quintero JG. (1971). Cysticercosis Lingual. *Rev. Lat. Am. Pathol*, 10,151-153.
10. Ostrofsky MK and Baker MAA. (1975). Oral cysticercosis: 3 case reports. *J. Dent. Assoc. S. Afr*, 30, 535-537.



11. Rosencrans M and Barak J. (1969). Parasitic infection of the mouth. A case report of cysticercus cellulosae. *N.Y. State D.J.*, 35,271-273.
12. Timosca G and Gaurilita L. (1974). Cysticercosis of the maxillofacial region. A clinicopathologic study of 5 cases. *Oral Surg*, 37,390-400.

