

## Cysticercosis of Tongue - diagnostic dilemma

Sangita Bhandary\*  
Rakesh Singh\*\*  
Prahlad Karki\*\*\*  
Arvind K Sinha\*\*\*\*

\*Address for Assistant Professor, Correspondence: Department of ENT, Head and Neck Surgery,

BP Koirala Institute of Health Sciences Ghopa, Dharan, Nepal, E-mail address: sangitabhandary@hotmail.com

\*\*Senior Resident, Department of ENT, Head and Neck Surgery, BP Koirala Institute of Health Sciences, Ohopa, Dharan, Nepal

\*\*\*Additional Professor, Department of Internal Medicine, BP Koirala Institute of Health Sciences, Uhopa, Dharan, Nepal

\*\*\*\*Assistant Professor, Department of Pathology, BP Koirala Institute of Health Sciences, Ghopa, Dharan, Nepal

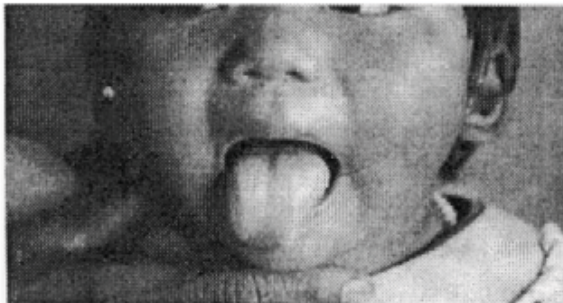
### Introduction

Cysticercosis remains a major public health problem in the developing regions of the world.<sup>1,2</sup> The word cysticercus is derived from Greek kystis = cyst and kerkos tail because of their appearance. It is caused by pork tapeworm *Taenia solium* or beef tapeworm *Taenia saginata*. The tapeworm larvae penetrate the intestinal wall and spread throughout body, causing small cysts in the muscles, eyes, heart, liver, lungs, periosteum, or tissues of central nervous system.

### Case report

A 3-year-old girl attended ENT OPD, at BP Koirala Institute of Health Sciences on December 21 2002 with two months history of progressive swelling over the left

Figure 1 - Photograph of the Child with swelling over the tongue



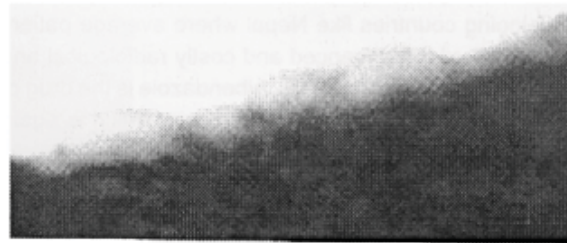
lateral margin of posterior one third of the tongue. The swelling measured approximately 3 cm in diameter and was smooth, non-pulsatile, non-tender, soft and cystic in consistency. Other ENT and systemic examinations revealed normal findings.

Based on the above findings the child was provisionally diagnosed as a case of mucous retention cyst and was referred to the department of pathology for FNAC.

The FNAC was done with 10 ml syringe on 22-gauge needle. The material obtained was processed as routine two air-dried smear attained with May Grunwald Giemsa (MGG) and two smears fixed in ethanol followed by papanicolau stain.

FNAC revealed body parts of larva of cysticercosis against inflammatory background.

Figure 2 - Body wall of larva of Cysticercosis showing deep notches in the thick Integument (FNAC Giemsa, 10 X)



Based on the above findings patient was finally diagnosed as a case of Cysticercosis of the tongue and treated with Albendazole 400 mg once daily for one week.

Child was followed up after two weeks and though residual tongue swelling was present, it had significantly reduced in size following the treatment.

### Discussion

Cysticercosis has highly variable prevalence rate, depending mainly upon socio-cultural and economic factors. Neurocysticercosis is the commonest

manifestations; the other rare sites involved being subcutaneous, intramuscular and ocular. Cysticercosis of tongue is however more rare presentation among all the above-mentioned sites. Viena et al had reported incidence of 7.4% for cysticercosis of the tongue.

Various diagnostic techniques recommended for cysticercosis include CT scan, MRI, and ultrasonography of cystic swelling. Immunodiagnosis is another method used to support diagnosis of cysticercosis.

Fine needle aspiration cytology (FNAC) is a well-accepted diagnostic procedure for the diagnosis of parasitic lesions. Various body fragments of larva can be identified under microscope. In some case the possibility of a parasitic lesion can be suggested in the absence of larval parts based on the characteristic inflammatory background. 4,5,6

Anticysticercal drugs like Albendazole (15 mg/kg body weight) for one week is cheap and effective in the treatment of cysticercosis. The other drug, which can also be, used praziquantel (50 mg/kg body weight) for 2 weeks.

### Conclusion

Cysticercosis is a common problem seen in eastern Nepal where pork meat is widely consumed by local population. 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 the human body, including the tongue. The present paper also highlights the utility of FNAC as a diagnostic procedure in detection of parasitic lesions. This is especially true for developing countries like Nepal where average patient cannot afford the advanced and costly radiological and immunological investigations. Albendazole is the drug of choice in management of cysticercosis, which is again both effective as well as affordable.

### References

1. Neito D. Historical notes on cysticercosis. In: Fusser A, ed. *Cysticercosis, present state of knowledge and perspectives*. New York: Academic Press, 1982: 1-7
2. Fusser A. taeniasis and cysticercosis and to *Taenia solium*. In: Sun T, ed. *Progress in Clinical Parasitology*. Florida: CRS Press, 1994; 4: 77-116
3. Vienna LG, Macedo V, Costa JM. Musculo-cutaneous and Visceral cysticercosis: a rare disease? *Am J Trop Med Hyg* 43(2): 194-9; 1990.
4. Kapila k, Verma K. Cytologic detection of parasitic disorder. *Acta cytol* 25:359-362: 1982
5. Arora Vk, Gupata K, Singh N, Bhatia A. Cytomorphologic Panorama of cysticercosis on fine needle aspiration. A review of 298 cases. *Acta cytol* 38:377- 380, 1994.
6. Rajwanshi A, Radhikas S, Das A, Jayaram N, Ranerjee CK. Fine Needle Aspiration Cytology if the diagnosis of cysticercosis Presenting as palpable nodule. *Diagn, cyto Pathol*, 7: 517- 519, 1991.
7. Cruz M, Cruz I, Horon J. Albendazole vs. Praziquantel in the treatment of cerebral cysticercus: Clinical evaluation. *Trans Soc Trop med Hyg* 1991,85:244- 247
8. Takayamagui OM, Jarism E. Therapy for neurocysticercosis: comparison between albendazole and praziquantel. *Arch neurol* 1992:49

The greatest revelation is stillness  
(Lao - Tzu)