

CYSTICERCOSIS OF THE CERVICAL REGION: A CASE SERIES OF A TUBERCULAR MIMICKER

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Received : 02/06/2026
 Received in revised form : 16/08/2026
 Accepted : 30/08/2026

Keywords:
 Cysticercosis, Fine needle aspiration cytology, Case series.

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DOI: 10.47009/jamp.2026.8.5.8

Source of Support: Nil,
 Conflict of Interest: None declared

Int J Acad Med Pharm
 2026; 8 (5); 44-46

**ABSTRACT**

Background: The objective is to highlight the clinical presentation of cervical cysticercosis as a diagnostic pitfall that mimics tubercular lymphadenopathy and to emphasize the role of Fine Needle Aspiration Cytology (FNAC) in achieving a definitive preoperative diagnosis. **Materials and Methods:** We present a retrospective case series of five patients (aged 14–55 years) who presented to our department with firm cervical swellings. Clinical histories included symptoms of all cases, the primary clinical suspicion was tubercular lymphadenopathy. **Result:** FNAC yielded varied aspirates ranging from clear fluid to pus-like material. Microscopic examination in all five cases revealed diagnostic features of *Cysticercus cellulosae*, including fragments of the fibrillary parasitic bladder wall with a honeycomb appearance and characteristic hooklets. The inflammatory background was mixed, featuring lymphocytes, histiocytes, and a prominent eosinophilic response. Epithelioid cell granulomas were noted in three cases, further contributing to the initial clinical confusion with tuberculosis. All patients were successfully diagnosed cytologically, bypassing the need for invasive surgical biopsy. **Conclusion:** In endemic regions, cervical cysticercosis frequently presents with clinical features and constitutional symptoms indistinguishable from tuberculosis. A high index of suspicion is required when evaluating subcutaneous or intramuscular neck nodules. FNAC remains a rapid, cost-effective, and highly accurate tool for identifying parasitic morphology, ensuring timely medical management and preventing unnecessary surgical intervention or empiric anti-tubercular therapy.

INTRODUCTION

Cysticercosis is a parasitic infestation caused by encysted larval form of *Taenia solium*. Worldwide it is one of the most common parasitic diseases and is endemic in developing countries like India.^[1] Poor hygiene, lack of proper sanitation, free roaming pigs, consuming contaminated food and undercooked infected pork are the major routes of its spread.^[2,3] It has two larval forms, *Cysticercus cellulosae* and *Cysticercus racemosus* presenting as neural and extraneural forms, respectively. Extraneural involvement present as single or multiple firm nodules in skeletal muscles, eyes and subcutaneous tissue. Rarely, involvement of the cervical region in head and neck, buccal mucosa, tongue, lips and submandibular region has been reported.^[4,5] We are presenting a case series of 5 cases of cysticercosis presented as cervical swelling mimicking tubercular lymphadenopathy.

CASE PRESENTATION

Case 1: A 16 years old male presented as multiple left cervical firm swellings measuring from 2X1 cm to 1X1 cm along with multiple discharging sinuses.

Clinically it was suspected as Tubercular lymphadenopathy. FNAC was done and on microscopic examination multiple Hooklets, fragments of parasitic bladder wall in the form of fibrillary bluish material with interspersed small nuclei, and at places, they revealed a honeycomb appearance. Background comprised of mixed inflammatory cell infiltrate consisting of eosinophils, lymphocytes, and histiocytes. Cytological diagnosis of cysticercosis was made [Figure 1].

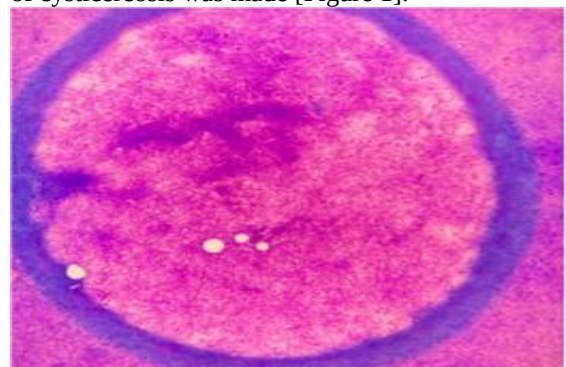


Figure 1: Photomicrograph showing bladder wall of cysticercosis against a background of mixed inflammatory infiltrate on a cytology smear [Giemsa stain 400 X].

Case 2: A 25 years old male presented as firm, non-tender swellings in bilateral cervical region. Having history of cough and malaise for 1 month. Clinically Tuberculosis was suspected. FNAC was done which yielded clear fluid. On microscopic examination multiple hooklets, granulomas and fragments of bladder wall was examined. Background comprised of mixed inflammatory cell infiltrate. A diagnosis of cysticercosis was made [Figure 2].

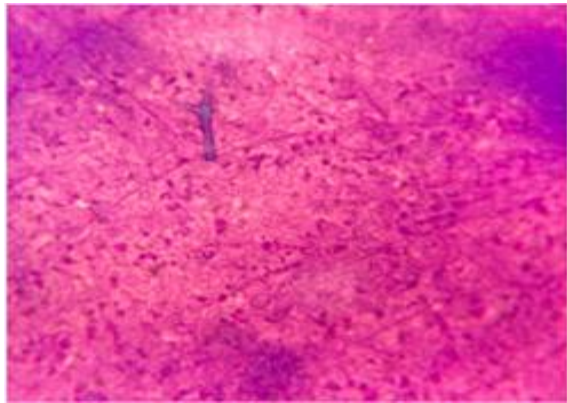


Figure 2: Photomicrograph showing hooklet of cysticercosis along with fragmented bladder wall against a background of mixed inflammatory infiltrate on a cytology smear [Giemsa stain 400X]

Case 3: A 14 years old female presented with multiple firm right cervical swellings and have history of TB contact for 1 year and cough for 2 weeks. Clinically tuberculosis was suspected. FNAC was done and yielded pus like material. On microscopic examination multiple fragments of bladder wall in the form of fibrillary bluish material with interspersed small nuclei against a background of mixed inflammatory infiltrate. A diagnosis of cysticercosis cellulose was made [Figure 3].

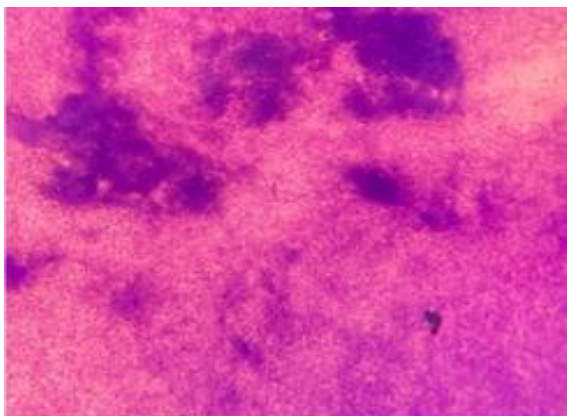


Figure 3: Photomicrograph showing multiple fibrillary fragments of bladder wall of cysticercosis against a background of mixed inflammatory infiltrate on cytology smear. [Giemsa stain 400 X]

Case 4: A 32 years old female presented with a firm and tender cervical swelling in right cervical region along with history of cough and discharging cervical sinuses. Clinically tuberculosis was suspected. FNAC was done and yielded pus like material. On

microscopic examination multiple fragments of fibrillary bluish material with interspersed small nuclei along with multiple granulomas against background of mixed inflammatory infiltrate comprising of neutrophils, eosinophils, lymphocytes and histiocytes. A cytological diagnosis of cysticercosis was made [Figure 4].

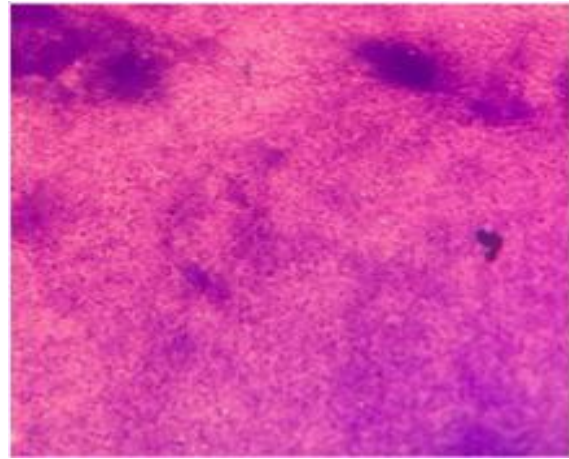


Figure 4: Photomicrograph showing multiple fibrillary fragments of bladder wall of cysticercosis against a background of mixed inflammatory infiltrate on cytology smear. [Giemsa stain 400 X]

Case 5: A 55 years old female presented with a firm, non-tender cervical swelling in left cervical region along with a history of cough for 2 weeks, malaise for 5 days and history of TB contact was present. Clinically Tuberculosis was suspected. FNAC was done and yielded clear fluid. On microscopic examination multiple fragmented hooklets, fragments of parasitic bladder wall along with epithelioid cell granulomas was examined. Background comprises of mixed inflammatory cells infiltrate. Cytological diagnosis of cysticercosis was made [Figure 5].

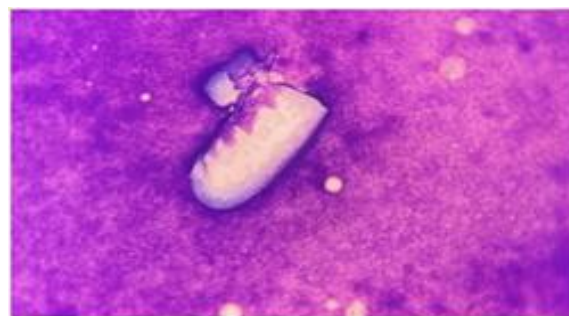


Figure 5: Photomicrograph showing fragmented hooklet structure of cysticercosis against a background of mixed inflammatory infiltrate on cytology smear. [Giemsa stain 400X]

DISCUSSION

Human cysticercosis is a disease caused by parasite *T. solium* larval form which spreads through fecal - oral route by consumption of raw uncooked vegetables, undercooked pork, drinking

contaminated water.^[6,7] It commonly involves the CNS, eyes, skeletal muscle and subcutaneous tissues and presented as palpable form nodules which are often clinically diagnosed as soft tissue tumors or as lymphadenopathy. Rare sites include chest wall, cheek, axilla, abdominal wall and lateral side of the neck as seen in our cases.^[8] It is diagnosed by radiology and serology examination which provide supportive diagnosis. Pathological examination is a definitive diagnostic test for cysticercosis. In our cases USG was not done initially as clinically these cases were suspected to be tubercular lymphadenopathy owing to prevalence of this in our society and the site of the lesions. FNAC is a cost-effective test providing rapid and definitive diagnosis. Diagnostic role of FNAC in cysticercosis was first emphasized by Kung et al in 1989.^[9]

CONCLUSION

Parasitic infestation should be maintained as a crucial differential diagnosis for any palpable subcutaneous or intramuscular nodule, even in unusual anatomical locations. As demonstrated in this case, Fine Needle Aspiration Cytology (FNAC) is a simple, rapid, and cost-effective, and accurate diagnostic procedure that can provide a definitive diagnosis of cysticercus lesions preoperatively, thereby preventing unnecessary surgical interventions. A high index of

suspicion, coupled with a thorough cytologic examination of the aspirated material—specifically looking for larval fragments, hooklets, or a high eosinophilic response—is key to achieving a rapid and accurate diagnosis.

REFERENCES

1. Kraft R. Cysticercosis: An emerging parasitic disease. *Am Fam Physician*. 2007;76:916.
2. World Health Organization. Taeniasis/Cysticercosis [Internet]. Geneva: WHO; 2019 [cited 2019 May 21]. Available from: [URL].
3. Prasad KN, Prasad A, Gupta RK, Pandey CM, Uttam S. Prevalence and associated risk factors of *T. solium* taeniasis in a rural pig farming community of North India. *Trans R Soc Trop Med Hyg*. 2007;101:1241-7.
4. Virk RS, Panda N, Ghosh S. Mylohyoid cysticercosis: A rare submandibular mass. *Ear Nose Throat J*. 2009;88:1218-20.
5. Taneepongtab D. Cysticercosis of the neck: A report of unusual case. *J Med Health Sci*. 2005;12:1236.
6. Gill M, Dua S, Gill P, Gupta V, Gupta S, Sen R. Cytomorphological spectrum of subcutaneous and intramuscular cysticercosis: A study of 22 cases. *J Cytol*. 2010;27:123-6.
7. Rajwanshi A, Radhika S, Das A, Jayaram N, Banerjee CK. Fine-needle aspiration cytology in the diagnosis of cysticercosis presenting as palpable nodules. *Diagn Cytopathol*. 1991;7:517-9.
8. Jashnani KD, Desai HM, Shetty JB, Pandey I. Fine-needle aspiration cytology of subcutaneous cysticercosis: A series of five cases. *Ann Trop Med Public Health*. 2016;9:73-5.
9. Kung IT, Lee D, Yu HC. Soft tissue cysticercosis. Diagnosis by fine-needle aspiration. *Am J Clin Pathol*. 1989;92:834-5.