Cysticercosis of neck - A rare cutaneous tumor

Sir

Cysticercosis is a parasitic infection caused by the larvae of the tapeworm *Taenia solium*, which is normally found in the subcutaneous tissue, brain, and eyes.

We report a rare case of cysticercosis of neck. The diagnosis was performed based on the gross and microscopic examination in which *T. solium* larvae was found.

Neck mass has several differential diagnosis depending on the clinical course and characteristics. However, age of a patient, duration of symptoms, and location of a mass play an important role for the diagnosis.[1] A posterior neck mass in a middle-age adult is the common presentation of nasopharyngeal carcinoma, lymphoma, tuberculous lymphadenitis, and other rare chronic infective diseases. Cysticercosis is relatively common in the subcutaneous tissue, brain, and eyes, and is rare as head and neck problem. Cysticercosis in humans is exclusively caused by the larvae of the tapeworm T. solium, which have a predilection for skeletal muscles, eyes, and the nervous system. In literature, head and neck manifestation of cysticercosis is reported as soft tissue swelling at submental area, cheek, as well as tongue.[2] This paper attempts to report a case of cysticercosis with a neck mass, to describe the clinical course and management of this condition. A 35-year-old man presented with a 3-year-history of neck mass. He had no fever, pain, or other constitutional symptoms. Examination revealed a 2 cm × 2 cm mass at left upper posterior triangle of neck. The mass was rubbery in consistency, nontender, and fixed. Other ENT examination appeared unremarkable. Fine needle aspiration biopsy was performed and revealed nonspecific inflammation. The patient ultimately underwent an excisional biopsy of the mass. Gross examination revealed soft tissue mass measuring 2.5 cm × 1 cm × 1 cm in size showing an irregular cyst filed with clear fluid. Microscopic examination demonstrated a cystic lesion containing part of the parasite. The cystic wall contained granulomatous tissue with acute inflammatory reaction. The parasitic wall displayed small granules along the cuticle, characteristic of cysticercosis [Figure 1]. Diagnosing cysticercosis can be difficult as its clinical presentation is usually nonspecific. When involving subcutaneous tissue, it can present as firm, nontender, solitary, or multiple nodules tissues, so called cysticercosis. Soft tissue cysticercosis is seen in the form of a painless swelling of a long-term duration. Because of its wide availability, ultrasonography could be the preferred initial modality for the evaluation of superficial masses. Cysticercosis are seen as well-defined echoic or hypoechoic lesions with or without calcification.



Figure 1: Photomicrograph of tissue section showing cysticercus larva enclosed in a thin fibrous cyst wall (H and E, ×400)

Cysticercosis, presenting as a neck mass and, is diagnosed by microscopic examination in which *T. solium* larva are found. Definite diagnosis is by the identification of detached hooklets, scolex, and fragments of spiral wall of cysticercosis cellulosae. In some cases, sections show no larval parts but contain inflammatory reaction consisting of large number of eosinophils and palisading histiocytes, which is suggestive of a parasitic cyst. The management of cysticercosis can involve chemotherapy, surgery, and supportive medical treatment. In cases of cervical nodule, wide excision of the involved soft tissue should be the main stay of the treatment. Midline neck swelling have diagnostic dilemma due to its site. Cysticercosis should always be kept as differential diagnosis in all subcutaneous swellings in an endemic region like India for early diagnosis and treatment.

Financial support and sponsorship

Conflicts of interest

There are no conflicts of interest.

Sarita Asotra

Department of Pathology, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India

> Correspondence to: Dr. Sarita Asotra, Flat No. 5, Block No. 5, Phase 3, New Shimla - 171 009, Himachal Pradesh, India. E-mail: saritaasotra@gmail.com

REFERENCES

 Kuruvilla G, Job A, Thomas M. A rare case of nasal cysticercosis mimicking a nasal dermoid. J Laryngol Otol 2007;121:94-5.

- 2. Kalra V, Seth R, Mishra D. Extraneural cysticercosis Presenting as painless cervical swellings. J Trop Pediatr 2006;52:141-3.
- 3. Shedge RT, Surase SG, More M, Solanke VN. Subcutaneous cysticercosis. Bombay Hosp J 2012;54:319-21.
- 4. Hawk MW, Shahlaie K, Kim KD, Theis JH. Neurocysticercosis: A review. Surg Neurol 2005;63:123-32.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online Quick Response Code: Website: www.ccij-online.org DOI: 10.4103/2278-0513.186111

Cite this article as: Asotra S. Cysticercosis of neck – A rare cutaneous tumor. Clin Cancer Investig J 2016;5:363-4.