

A Rare Case of Cysticercosis of the Abdominal Wall

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Abstract

Cysticercosis is a parasitic disease caused by *Taenia solium*. In the developing world, it is a major health concern. Intestinal infection is known as Tiniasis, and it is quite asymptomatic, in severe conditions it can cause intestinal irritation, anemia, loss of appetite and emaciation. Tissue infection is called cysticercosis, isolated soft tissue cysticercosis of the trunk is uncommon and may be difficult to diagnose. Here we report an unusual case who presented with abdominal wall swelling without central nervous system and ophthalmic involvement.

Keywords: Cysticercosis, *Taenia solium*, Tapeworm

INTRODUCTION

Cysticercosis is a tissue infection by the *Taenia solium*. Infection is acquired through ingestion of raw or under cooked meat/pork containing the cysticercus, that's why it is also known as pork tapeworm. Man is an intermediate and pig is a definitive host.¹ Cysticerci can be found anywhere in the body. Diagnosis is made by the biopsy of the lesion. Patients may usually asymptomatic for years, develop approximately one to two centimeter painless lump in the skin and muscles, or have neurological symptoms if the brain is affected. When cysts are found in the brain, it is known as neurocysticercosis. In the developing countries like India, this is one of the most common causes of seizures.¹

The disease is usually spread by eating foods that contains the tapeworm's eggs, especially in non-vegetarian people.² In vegetarian people it can be caused by uncooked vegetables. Diagnosis is made by computed tomography (CT), magnetic resonance imaging serological investigations, histopathology.³⁻⁵ In routine investigations, eosinophil counts usually raised. In our patient eosinophilia was present. In Indian scenario, this case needs documentation in the medical literature so that clinicians can have a differential diagnosis of an asymptomatic lump in the skin.

CASE REPORT

A 6-year-old boy presented with a painless swelling on the right side of the abdominal wall at the level of umbilicus, noticed by mother while bathing the child 8 days back. He was a non-vegetarian residing in a rural locality. On examination there was an ovoid, freely mobile non tender swelling measuring 2 cm × 1 cm in size. Routine examination of the patient revealed eosinophilia, eosinophil counts were markedly raised. Other routine investigations were within normal limit. There was no history of trauma. He underwent excisional biopsy. Histopathology confirmed cysticercus cellulose shown in Figure 1. He did not have any neurological symptom, seizure or visual disturbance. CT scan head and ophthalmic examination were unremarkable. Patient discharged with course of prednisolone 20 mg OD followed by albendazole 400 mg OD for 21 days. Routine blood investigations were normal. In regular follow-up patient is having no clinical complaints (Figure 2).

DISCUSSION

Cysticercosis is a parasitic infection caused by cysticercus cellulosa, the larva form of *Taenia solium*. Whereas the infestation of the human intestine with an adult tapeworm

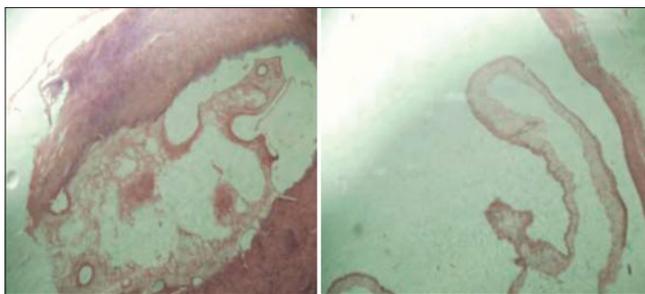


Figure 1: Histopathologic photographs showing scolex



Figure 2: Post-operative photo of patient showing scar of surgery

is known as Taeniasis. Human are the only definite host while human and pig can act as intermediate hosts. The mode of transmission is feco-oral. The most common being the consumption of raw or under cooked beef or pork, water or vegetables contaminated by *Taenia* eggs.¹

Humans become the dead end host of the *T. solium* larvae when they drink contaminated water or eat raw or poorly cooked vegetables or pork infested with larvae.²

The most common site of occurrence of cysticercosis of soft tissue cysticercosis is skeletal muscle of the upper extremities.³ Abdominal and chest wall lesions are seen less often.^{4,5}

Isolated soft tissue cysticercosis is often used as a marker of neurocysticercosis and an evaluation for coexisting central nervous system (CNS), and ocular involvement is recommended.⁴ This was done post-operatively in our patient. High-resolution sonography can clinch the diagnosis by demonstrating the presence of a scolex within

the cyst. Sonographic features are surrounding edema or abscess formation and rice grain appearance.⁶

Fine needle aspiration cytology is also useful for pre-operative diagnosis of soft tissue cysticercosis. The aspirate is usually blood stained. Sometimes it may be clear fluid or pearly white. It may show the presence of tiny parasitic fragments.⁷

Surgical excision of the isolated soft tissue cysticercosis usually suffice if concurrent involvement of the CNS and ocular disease have been ruled out, if soft tissue cysticercosis is diagnosed accurately. Particularly in an endemic area it can be treated medically eliminating need for surgery, if there is evidence of abscess formation. Medical therapy includes high dose anthelmintic therapy, i.e., albendazole 10-15 mg/kg/day for 8 days.^{3,8}

CONCLUSION

Most important aspect of our case report is to give a message of preventing the infection involves: Cooking pork well, boiled vegetables, proper sanitation and improved access to clean water in urban, as well as rural part of India. Conservative management of neurocysticercosis may be with the medications praziquantel or albendazole. Medication required long period of time. Role of steroids is also there to decrease inflammation during treatment. Anti-seizure medication is also needed for neuro-cysticercosis. Surgical management is the main stay when conservative management is fail to relieve the symptoms.

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