



CYSTICERCOSIS OF FOREARM TREATED CONSERVATIVELY: A RARE CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

Due to vague clinical presentation and unfamiliarity of clinicians with this entity, it is difficult to diagnosis when seen as an isolated cyst. Traditional treatment is surgical excision and a course of deworming agents. Cysticercosis is an infection caused by the larvae of the tapeworm, *Taenia solium*. Neuro cysticercosis is the most common clinical presentation of cysticerci infestation in the human body, but it may be rarely encountered in other body parts like skeletal muscle, subcutaneous tissue and eye. Cysticercosis is a common human infestation in the developing world.

CASE REPORT: A 23yr old female presented in the orthopaedics OPD with complain of swelling over the right forearm since 4 months. It was diagnosed as a cysticercosis on ultrasonography of forearm and it revealed a scolex, the aim of this case report was to document a rare presentation of cysticercosis cyst in forearm. It was treated by albendazole 400mg (15mg/kg/day) for twice a day dose daily for 3 weeks. The patient came for follow up after 6 weeks and no swelling was palpable and USG reports at 10 week did not reveal any cystic lesion.

CONCLUSION: Our patient responded to medical therapy as confirmed by 10 week ultrasound, and can be successfully treated non-surgically with an oral drug regimen consisting of albendazole.

KEYWORDS : cysticercosis, isolatermuscular, drug therapy

Introduction:

till date only handful of cases of isolated myocysticercosis are reported. We are reporting a case of isolated muscular cysticercosis, diagnosed by ultrasound and confirmed by FNAC successfully treated with oral antihelminthic drug. Isolated cysticerci swellings have been reported in literature in muscles of mastication [1,2,3], neck [4,5] tongue [6,7,8], trunk [9], internal oblique [10] and biceps brachii muscles [11].

Cysticercosis is a common human infestation in the developing world. It is a parasitic infestation of the body caused by cystodes, the pork tapeworm, and *Taenia solium*. Humans may be either definitive hosts (adult tapeworm residing in the gastrointestinal tract) or intermediate hosts (larval stage residing in the tissues) for *Taenia solium*. Humans are the only definitive hosts for *Taenia solium* and pigs are the usual intermediate hosts [12].

The clinical presentation depends on the location, size, number of lesions and the inflammatory response evoked in the body by the parasite [12,13, and 14].

Usually muscle or soft tissue infestation is encountered in association with brain involvement. Isolated soft tissue or muscle involvement with cysticercosis however is not common and only a handful of cases have been reported in literature in which cysticercosis has presented as an isolated swelling in any body part. We report this case of an uncommon Clinical presentation of soft tissue cysticercosis as an isolated forearm Swelling located in the intermuscular septum.

Case report: a 23 year old female patient had swelling in right forearm inner aspect since 4 months and dull aching diffuse pain and discomfort aggravated by doing routine household work. Gripping any object strongly and complete extension of fingers of same limb were other aggravating factors. On examination it was soft to firm, mobile mass, not fixed to the underlying structures or to the overlying skin and there was no induration or redness. Swelling was indistinct with fusiform shape and moderately for deep

palpation it was no pulsatile, minimally mobile in horizontal plain, with no movement in longitudinal plane and arising probably from layer deep in flexor compartment of forearm. The blood investigations showed a haemoglobin of 13.5 gm%, total leucocyte count of 9900/mm³ (Neutrophils 77, Lymphocytes 18, Monocytes 08, Eosinophils 0). Erythrocyte sedimentation rate was 12 mm first hour rate. Renal and liver function tests were also normal.

Another major diagnostic criterion is detection of specific anticysticercal antibodies in serum by EITB (enzyme linked immunoelectrotransfer blot), which is > 99% specific and sensitive [15]. Positive serum or CSF ELISA for cysticerci antibodies or antigens is included as a minor criterion because it is not as specific as EITB and may be falsely positive. However, it may be negative in single cysticerci lesions as in our case.

There was no history of any swelling in other part of body, visual disturbances, headache, vomiting or seizures. Patient is pure vegetarian of normal build and averagely nourished and had no contact with pork. A plain radiograph (fig 1) showed an oval haziness in the proximal forearm. either it was parasitic cyst or infective abscess and farther ultrasound examination was advised.

High resolution ultrasound is an inexpensive and readily available modality to diagnose cysticercosis which has the typical sonographic appearance [16]. Ultrasound showed approximately 2.4*1.2*0.9 mm³ characteristic hypoechoic cyst with hyperechoic scolex and surrounding muscles inflamed. These features ruled out clearly possibility of infective abscess, in absence of constitutional symptoms possibility of infective abscess was very unlikely. FNAC confirmed cysticercosis which showed fragments of cysticercus admixed with sheets of lymphocytes, histiocytes, polymorphs and few plasma cells.

Patient responded well to oral albendazole with a dose of 15mg /kg/day for 3 weeks and patient was asymptomatic at 3 week follow up.

Possibility of residual lesion at 10 week follow up was ruled out by doing USG which was absolutely normal.

When asked regarding submission of her data for publication she agreed and gave consent.

Our case presented as an isolated forearm swelling which also is a rare presentation of soft tissue cysticercosis and has been uncommonly reported in literature. The usual differential diagnostic considerations for a forearm swelling are lipoma, sarcoma, neurofibroma, soft tissue Myxoma, rhabdomyosarcoma etc. Cysticercosis is not often considered as a Diagnostic possibility when a patient with forearm swelling presents in the outpatient clinic. Though uncommon, it is important for the treating physician or surgeon to suspect cysticercosis in cases of isolated soft tissue Or muscle swellings, especially so in the developing world where Taeniasis is Endemic, since it is usually a medically treatable condition and can be reliably diagnosed by non-invasive investigations like MRI and USG.

Conclusion:

We report this case for the rarity of the clinical presentation of soft tissue Cysticercosis as an isolated forearm swelling lodged in the intermuscular plane in the flexor forearm compartment of medial side.

We also wish to highlight the facts that isolated myocysticercosis should be considered as a differential diagnosis of isolated swellings, particularly in endemic areas. Soft tissue cysticercosis can be confidently diagnosed non-invasively on MRI and USG. The blood examination picture is misleading and serum markers have low sensitivity in small cysts. Medical treatment often cures it, but surgical excision may be required in medically unresponsive swellings.

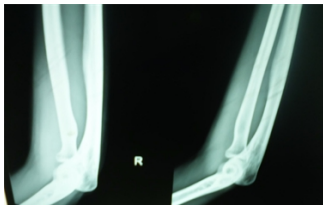


Figure 1: radiograph of forearm



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