Cysticercosis of the foot – case report of a rare pseudo-tumour

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Introduction

Cysticercosis in humans is due to Taenia Solium parasite infection1. They most commonly affect the central nervous system and less commonly the eye and striated muscles2. To our knowledge presence of isolated cysticercosis infection is rare3–6.

We would like to present one such case which we came across in clinical practice and posed a serious diagnostic dilemma.

Case report

A 22 year old Indian female presented to our teaching hospital in southern India with complains of an atraumatic swelling and pain in her left foot for a week. She was a second year medical student and was a vegetarian by diet. She had no constitutional symptoms. On local examination there was diffuse swelling and redness on both dorsal and plantar aspect of the foot. Palpation revealed a 2 x 2 cm subcutaneous swelling with undefined margins and no local rise of temperature. The plane of the swelling was seemed intra muscular. The consistency of the swelling was soft and it was non fluctuant non- fluctuant.

Clinical photograph at presentation

Investigations

Besides an ESR of 75 mm/hr, all her other blood investigations were normal. At this juncture the differential diagnosis was that of a soft tissue tumour and it was decided to go ahead with a MRI scan and if needed a soft tissue biopsy. However, the MRI scan of the foot showed small cystic scolex shaped lesion measuring 8 millimeter in the plantar aspect deep to flexor tendons at the level of 2nd metatarsal with a hypo tense focus and associated collection. These features were classical for a striated muscle Cysticercosis. Computerised tomography of brain was done to rule out any cerebral lesions. This was normal and showed no features suggestive neurocysticercosis.

Clinical photograph at 6 weeks

MRI scan images of the left foot

Treatment

Patient was managed conservatively with anti-helmintic drug Albendazole 15mg/kg/day in two divided doses for three weeks and diclofenac as an analgesic. She was given a STAT dose of dexamethasone 4 mg injection intra muscularly. Patient was followed on every third day for three weeks. Pain and edema of foot subsided in a week. Swelling gradually reduced in three weeks’ time. At 6 weeks patient was completely asymptomatic.

Clinical photograph at 6 weeks

Discussion

Cysticercosis infection in humans is caused by Taenia Solium1. It is common in Asian and African population2. In the life cycle of taenia solium, humans are the definitive host and usually acquire the infestation due to consumption inadequately cooked pork. Interestingly, this patient followed an exclusively vegetarian diet. Thus it is possible for vegetarians to acquire this parasitic infection as well, possibly due to accidental ingestion of the eggs. The ingested eggs hatch in the small intestine, releasing oncospheres that penetrate the bowel mucosa and enter the bloodstream to travel to various tissues where they develop to form an encysted larval form of T. solium known as cysticercosis cellulose.

The cysts most commonly in the central nervous system followed by the eye, striated muscles, subcutaneous tissue and rarely in other locations. Presence of multiple muscular cysts and isolated involvement in foot is rare.

Three different clinical manifestations of muscular cysticercosis are described: myalgic myopathic type; the nodular or mass like type; and the pseudohypertrophy type in which multilocular cyst formation occurs in group of muscle3–5.

Treatment of cysticercosis depends on the site of involvement. It is generally treated with anti-helmintic drugs in combination with anti-inflammatory drugs. Surgery is rarely necessary to treat cysts in certain locations when patient does not respond to medical management.

Conclusion

Cysticercosis can affect the muscles of the foot and mimic a tumour. It can however be treated conservatively with good clinical outcome.

References