



ORIGINAL RESEARCH PAPER

General Surgery

**UNCOMMON PARASITIC INFECTION:
ISOLATED INTRAMUSCULAR CYSTICERCOSIS-
A CASE REPORT**

KEY WORDS: Intramuscular Cysticercosis , Triceps Muscle, High Resolution Ultrasound

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ABSTRACT

Human cysticercosis is caused by cysticercus cellulosae, larvae of a tapeworm, taenia solium. Cysticercosis can involve any tissue in the body even it has maximum tendency towards neural tissue. The most common affected sites are central nervous system, subcutaneous tissue, eyes and muscles. An isolated case of intramuscular cysticercosis is a rare presentation. Here we present the case of a 35 year old female with a swelling on the posterolateral aspect of right arm and was diagnosed as myocysticercosis which was abutting to the extensor muscle that is triceps muscle on high resolution ultrasound and ct scan and it was managed by antihelminthic medications followed by surgical excision.

INTRODUCTION:

Cysticercosis is a parasitic infection caused by the larval form of the pork tapeworm, Taenia solium. The most common sites of cysticercosis are the central nervous system, subcutaneous tissue, muscle, and vitreous humor of the eye. However, cysticercosis can also affect other organs, such as the liver, lungs, and heart.

The diagnosis of isolated intramuscular cysticercosis can be challenging, as the symptoms can be nonspecific and imaging findings may resemble other soft tissue masses or tumors. Ultrasound and CT scans and FNAC can be helpful in identifying cysts in the muscle. Treatment usually involves surgical removal of the cysts, followed by anti-helminthic medication to kill any remaining parasites. It is important to note that cysticercosis can be prevented by practicing good hygiene, avoiding consumption of undercooked pork, and treating infected individuals to prevent transmission of the tapeworm eggs.

Case Report:

A 35 year old female came to the department of general surgery , in tertiary care teaching hospital in telagana india , with c/o swelling in the posterolateral aspect of right arm just above the elbow since two months. On examination, the swelling is measuring approximately 5*3 cm on posterolateral aspect of right arm, 2cm above the cubital fossa. The swelling was firm , tender and non fluctuant, with skin over swelling normal and no local rise of temperature. Systemic examination of the patient was normal and there were no other palpable swellings in the body .The patient was residing in comparatively hygenic surroundings but she worked as a sanitation worker. Although she never consumed pork and all her blood investigations and chest radiograph were normal and on ultrasound there was a well-defined cystic lesion measuring 1.9*2.3 cm and containing a small echogenic nidus and with large hypoechoic area of 4*3 cm around the cystic lesion in triceps .the patient was advised albendazole but swelling did not decrease in size. Later swelling was excised surgically and was prescribed albendazole 200mg tablets twice daily for 21 days postoperatively also.



Fig.1

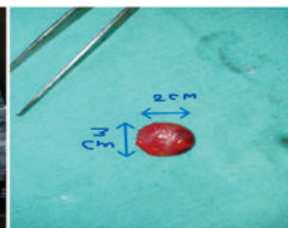


Fig.2

Fig.1 Usg Of Swelling Showing Intramuscular Cystic Swelling With Cysticercosis

Fig.2 Excised Specimen Of Cysticercosis

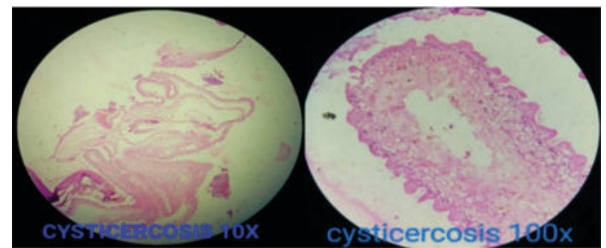


Fig.3: cysticercosis Under Microscopic Magnifications 10x And 100x

DISCUSSION:

Cysticercosis is a parasitic infection caused by the larval stage of Taenia solium, which is commonly found in Asia and transmitted through the fecal-oral route. Humans are the definitive hosts of the adult worm, which develops in the small intestine after ingestion of inadequately cooked infected pork. Eggs of the worm are excreted with the feces and can be ingested by pigs, the intermediate host, where the eggs hatch and develop into cysticercosis, completing the cycle. Humans can also be intermediate hosts by ingesting eggs from contaminated food or water. The eggs hatch in the small intestine, releasing oncospheres that penetrate the bowel mucosa and enter the bloodstream, where they can develop into cysticercus cellulose in various tissues, forming cysts. These cysts can remain viable for up to 10 years in humans and can induce a vigorous granulomatous inflammatory response upon death, producing symptoms depending on the anatomic location. Cysticercosis is the most common parasitic disease of the central nervous system worldwide and can also take the form of subcutaneous nodules. Muscular cysticercosis is generally asymptomatic, but there are three types of clinical manifestations described: the myalgic, myopathic type; the nodular or mass-like type; and the rare pseudohypertrophy type. The death of the larva can cause acute inflammation, resulting in local pain and myalgia. Alternatively, degeneration of the cyst can result in a chronic inflammatory response, with collection of fluid around the cyst, resulting in the mass-like type or the abscess-like type. Sonographic appearances of muscular cysticercosis include the cysticercus cyst with an inflammatory mass around it, an irregular cyst with minimal fluid on one side, and a large irregular collection of exudative fluid.

CONCLUSIONS:

In endemic regions for Taenia solium infection, isolated

intramuscular cysticercosis should be considered in the differential diagnosis of soft tissue swellings, especially when the patient has a history of exposure to risk factors such as poor sanitation or consumption of raw or undercooked pork. Ultrasound can be a useful initial investigation, and invasive techniques such as fine-needle aspiration cytology (FNAC) or biopsy may be necessary to confirm the diagnosis in cases where imaging is inconclusive. Early recognition and treatment of isolated intramuscular cysticercosis can help prevent further complications and improve patient outcomes.