



CASE REVIEW OF CALCIFIED GUINEA WORM.

General Surgery

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ABSTRACT

Although Dracunculiasis has been eradicated from most parts of the world, it is still endemic in some tropical African and Asian countries.[1,14] Calcified Guinea worms can be misdiagnosed with hydatid disease, loa loa and onchocera volvulus , so a proper knowledge about the diagnosis must be present with the physician.[2,18] Here we report a 65-year-old female from Maharashtra with radiological evidence of calcified Guinea worms. There is need for awareness among physicians about the occurrence of GWD in people and the need to ensure supply of safe drinking water to prevent its re-emergence.

KEYWORDS

INTRODUCTION

The source of infestation lies in the drinking of water contaminated by a small cyclops, which happens to be harboring the guinea worm embryo.[2,19] The worms are liberated in the stomach and, penetrating the intestinal wall, pass eventually to the subcutaneous tissues.[2] Once dead, the adult worm may undergo calcification, the typical location being in the lower extremities and usually with a long, string-like, serpiginous appearance.[3,7] The radiologic differential diagnosis should include other parasitic diseases. Several filarial worms, specifically Loa loa and Onchocerca volvulus, may calcify, but these are much smaller and almost always seen in the hands and feet. In cysticercosis, patients have multiple "rice grain" calcifications that are oriented along the direction of the muscle fibers and are quite easy to identify and distinguish from D. medinensis.[4,8,10] Our patient had the classic type of calcification (curvilinear calcification) seen in guinea worms in the anterior abdominal wall.

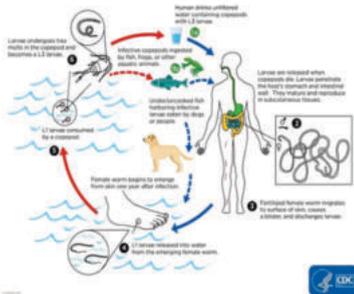


Image Of Lifecycle [5]

Case Report

A 65-year old, previously healthy female from Maharashtra, housewife by occupation with no co morbidities, presented to our opd with 3 years history of a hard lump of size of a lemon in right lower abdomen.

Patient gives history of a sudden onset painful, and itching erythematous macular rash over right lower abdomen, which progressed to blisters over few weeks. Later the rashes and blisters subsided on medications as advised by local practitioner 1.5 years back. Her systemic review was unremarkable. On examination, her vital signs were stable. She had a hard, mobile lump of around 4* 3 cm in right iliac fossa. The overlying skin was normal and non tender. Systemic examination was unremarkable. Initial laboratory work up was normal and her chest x-ray, and electrocardiogram revealed no

abnormality. The x-ray abdomen erect incidentally revealed soft tissue liner, and segmental calcifications in left iliac fossa. Ultrasound of abdomen pelvis was suggestive of localised lump with no intramuscular or intraperitoneal extension. Hence patient was planned for excisional biopsy under spinal anaesthesia. Histopathology of the specimen revealed calcified guinea worm infestation.

Post operative period was uneventful. On further questioning, she admitted to drinking water from local wells, for many years.



Image- Pre operative clinical image of calcified guinea worm infection in the right iliac fossa of the patient.



Image-Intraoperative photo with photo of clinical specimen showing calcification.

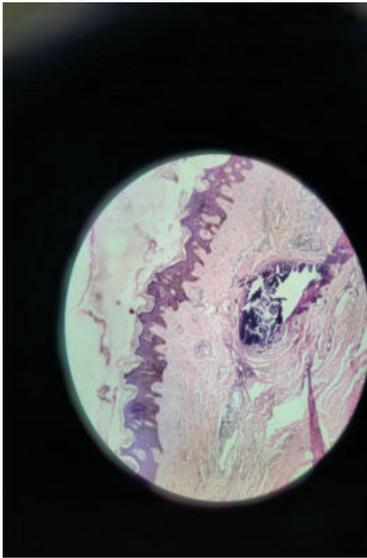
DISCUSSION

Image- Histopathological Image Of Calcified Guinea Worm.



Image- Radiological Image Of Calcified Guinea Worm In Right Iliac Fossa.

The calcified worm can be seen as a very thin interrupted line of variable length (up to 3 cm) or as a whorl of hairlike calcification.[4,17] If this worm is walled off by fibrous tissue, the calcification resembles any other granuloma.[6]. Calcification due to hydatid disease has the characteristic appearance of a rim of a cyst. A pattern of amorphous calcification resembling a granuloma can also be seen in guinea worm infestation.[7] The radiological differential diagnosis includes hydatid disease, filarial infestation, cysticercosis and porocephalus.[8,9] The radiographic manifestations of *Dracunculus medinensis* infestation are limited to the appearance of calcified retained adult female worms.[10,11,15] They can be easily identified as filamentous and beaded structures of many centimeters in length. If the worm is coiled or partially disintegrated, the calcification may be more amorphous, mottled or whorled. The retained calcified female worms are most commonly asymptomatic in nature.[12] Occasional case reports indicate that the calcified worms may produce symptoms of pressure in critical locations.[13,19,20]

CONCLUSION

Calcified guinea worm in any body cavity are important for the surgeons and physicians because few patients may present with the xray of the abdominal cavity and the systemic review may be normal and the also normal vital signs and may be asymptomatic, so a clear knowledge about the diagnosis of the disease is very important in such cases and proper aid must be given to the patient by the physicians.[9,16]

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