



Scrotal Hydatid cyst: Atypical presentation of Hydatid disease – a case report

KEYWORDS

Echinococcus; Hydatid, Scrotal.

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ABSTRACT Hydatid parasitic disease is common among cattle handling population and is endemic to few geographic areas. It is caused by *Echinococcus granulosus*. Commonly involved organs are liver and lungs. Other less common organs involved are brain and musculoskeletal system. Rarely other organs can get involved as in the concerned case scrotal Hydatid was found which was initially confused as epididymal cyst.

Introduction

Contaminated food with eggs of *Echinococcus* is source of Hydatid parasitic infestation in humans. Infestation is particularly common in endemic areas of East Africa, North Africa, South Africa, the Middle East, and parts of South America, and Australia. Even direct contact with infected animals can be source of infestation. Humans are not definitive hosts to complete the life cycle of *Echinococcus*. Definitive hosts are animals belonging to dog families. Liver involvement via intestinal path is commonest organ to get infested in humans. Lung and brain involvement though less common but is often seen. Other organs like bones, eyes vertebrae, breast musculoskeletal organs, kidneys and glands are uncommon locations to find Hydatid cysts. [1] to [11] .

In concerned case intrascrotal extra testicular hydatid cysts were found in a young individual

Case Report

A young male in his thirties was send for evaluation of slow growing testicular mass, which was not painful but caused discomfort because of its size. Apart from previous past history of intermittent fever and diarrhea he never had any noticeable health issues. On Surgeon's clinical examination swelling was hard to firm and showed some transillumination and fluid thrill on left side. However right sided swelling was small in size, hard and didn't showed any transillumination or fluid thrill. Both swellings were separate from the testis. Clinical diagnosis of epididymal cyst or tumor was made.

Ultrasound was not helpful as bilateral lesions had calcific walls and hence CT scan with contrast was undertaken.

CT scan revealed left scrotal large cystic lesion outside the testis with partial egg shell like wall calcification[Fig 1]. Right scrotum revealed extra testicular collapsed calcified wall lesion[Fig 2]. As blood investigation revealed elevated blood counts, possibility of infective etiology like Hydatid was suggested. Positive hydatid serology confirmed the diagnosis. On administration of anthelmintic drugs, there was significant reduction in size of swelling. Surgery was put on hold and was to be reconsidered depending clinical course of the patient.

Figure 1

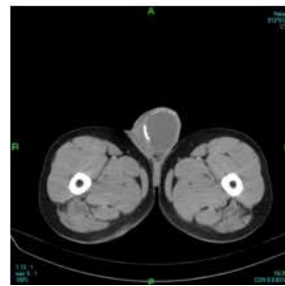
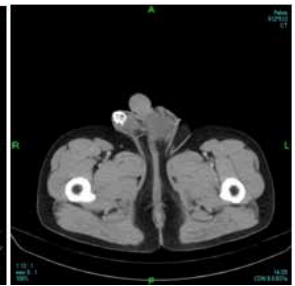


Figure 2



Discussion.

Echinococcus granulosus called as hydatid tapeworm is a small tapeworm, 2.1 to 5.0mm long, with only three proglottids, which are long and narrow. *Echinococcus granulosus* are transmitted through predator-prey cycles. The principal hosts of *Echinococcus granulosus* are dogs, wolves and foxes. In each instance, the carnivore definitive host becomes infected by ingesting the larval metacestode (Hydatid containing proto-scolices) within the intermediate host. Mature worms are located in the small intestine. Mild infections do not produce disease in dogs. Dogs experience intestinal inflammation in heavy infections, causing diarrhea, weight loss and a rough coat. Intermediate hosts include deer, cattle, sheep, swine and rodents. Eggs and disintegrating gravid proglottids, excreted in the definitive host's feces, are dispersed widely in the environment. Intermediate hosts ingest eggs and become infested. Oncospheres are liberated in the intermediate host's intestinal tract and are distributed to many extra intestinal sites via the venous and lymphatic systems. Development leads to the formation of a fluid-filled hydatid cysts in many organs. Infections occur most commonly in the liver[1], lungs[2], spleen[3], kidneys/ureter [4], heart [5], bones [6] central nervous system[6] , breast [10] and rarely testis or scrotum[7,8,11]

Most scrotal hydatids are bound to get clinically labeled as scrotal tumors or other cysts. Even imaging alone might not be able to confirm the diagnosis.

Since scrotal involvement is rare apart from imaging appearance hydatid serology [9] and clinical presentation with history of close animal contact can help arise possibility of scrotal hydatid disease. In our patient too, patient was diagnosed provisionally as testicular tumour till histopathology proved it as hydatid testis.

REFERENCE

1. Weirich WL. Hydatid disease of the liver. *Am J Surg*. 1979 Dec;138(6):805-808. | 2. JIRAYR P. BALIKIAN and FAYSAL F. MUDARRIS HYDATID DISEASE OF THE LUNGS *American Journal of Roentgenology* 1974 122:4, 692-707 | 3. Macpherson CNL, Romig T. Zeyhte E, Craig PS, Watschinger H. Observations on human echinococcosis (hydatidosis) and evaluation of transmission factors in the Maasai of Northern Tanzania. *Ann Trop Med Parasitol* 1989; 83: 489-497. | 4. Mongha R, Narayan S, Kundu AK. Primary hydatid cyst of kidney and ureter with gross hydatiduria: A case report and evaluation of radiological features. *Indian J Urol* 2008;24:116-7 | 5. Shields DA. Multiple emboli in hydatid disease. *BMJ* 1990; 301: 213-214. | 6. Gottstain B, Reichen J. Echinococcosis / Hydatidosis. In: Manson's tropical diseases. 20th ed. Bath Press, Aron Inc. 1996; 1486-1508. | 7. Kumar PVN, Jahanshahi SH. Hydatid cyst of testis: A case report. *J Urol* 1987; 137: 511-512. | 8. Singh B, Wani AA, Ganai AA, Singh M, Baba K. Hydatid cyst of testis: An unusual presentation of hydatid disease - case report and review of literature. *Indian J Urol* 2001;18:94-6 | 9. Kagan IG. A review of serological tests for the diagnosis of hydatid disease. *Bull World Health Organ. pubmed* 1968;39(1):25-37 | 10. Onedraogo EG. Hydatid cyst of the breast. 20 cases. *J Gynecol Obstet Biol Reprod (Paris)* 1986; 15: 187-194. | 11. Strohmaier WL, Bichler KH, Wilbert DM, Seitz HM. Alveolar echinococcosis with involvement of the ureter and testis. *J Urol* 1990; 144: 733-744. |