Primary isolated echinococcal cyst of the seminal vesicle: A rare case

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ABSTRACT

Introduction
Hydatid disease of the organs other than liver and lung is extremely rare. We report a rare case of hydatid cyst in a young male primarily involving the seminal vesicle and aim to highlight the management of such cases.

Material and method
A 40-year-old male presented with urinary symptoms such as dysuria, polachyuria. MRI scan showed a cystic mass located in the right seminal vesicle. Antibodies IgG anti-Echinococcus granulosus were increased.

Results
Treatment with Albendazole(10 mg/kg/day) was initiated and surgical excision of the lesion was carried out with careful removal of the cyst to prevent any bursting and spillage, leaving the seminal vesicle preserved. The cystic lesion was subjected to histopathological examination. Histopathology confirmed the diagnosis of hydatid disease. The postoperative period was uncomplicated and patient was discharged on seventh postoperative day.

Conclusion
Hydatid cyst of seminal vesicle is a rare finding and should be kept in differential diagnosis of a cystic lesion in pelvis especially in regions where hydatid disease is endemic. Proper surgical and medical management to avoid any recurrences, and a regular follow-up, are of utmost importance to detect any late complications such as local recurrence of the disease and development of hydatidosis at the primary sites.

Key-words: hydatid cyst, echinococcosis, seminal vesicle.

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Introduction

It is quite uncommon for echinococcosis to affect organs other than the liver and lungs. A hydatid cyst is a parasitic cyst that is frequently brought on by Echinococcus multilocularis or Echinococcus granulosus larvae. Predators including wolves, foxes, and dogs serve as E. granulosus' primary hosts; intermediate hosts include goats, sheep, and calves. A coincidental intermediate host is the human species. The most often damaged organs are the lungs (10–25%) and liver (65-75%). The peritoneal cavity (8–18%), spleen (2–3%), kidneys (1-4%), uterus (0.5–1%), subcutaneous (1-2%), pancreas (0.5–0.8%), and other places are likely uncommon [1,2].

Even in regions where the disease is widespread, primary hydatid cysts of the seminal vesicle are very uncommon [3]. This article aims to emphasize the management of hydatid cyst instances like the one we show in a young male patient, especially involving the seminal vesicle.

Case presentation

A 40-year-old man arrived with two years' worth of urinary tract symptoms, including dysuria and polachyuria. Pain, fever, hematuria, or trauma were not present in the past. The results of the abdominal, cardiovascular, and pulmonary exams were not conclusive. A normal prostate was found during a rectal examination. The results of the haematological tests, urine analysis, serum prostate specific antigen (PSA), and chest radiograph were all normal. Additionally, an abdominal ultrasound was performed, and the results showed a well-defined, encapsulated, multiloculated cystic mass with no solid component in connection to the right seminal vesicle. Prostate and bladder mass effects were observed in significant amounts.

A cystic tumor in the right seminal vesicle was discovered by an MRI scan (Fig. 1).

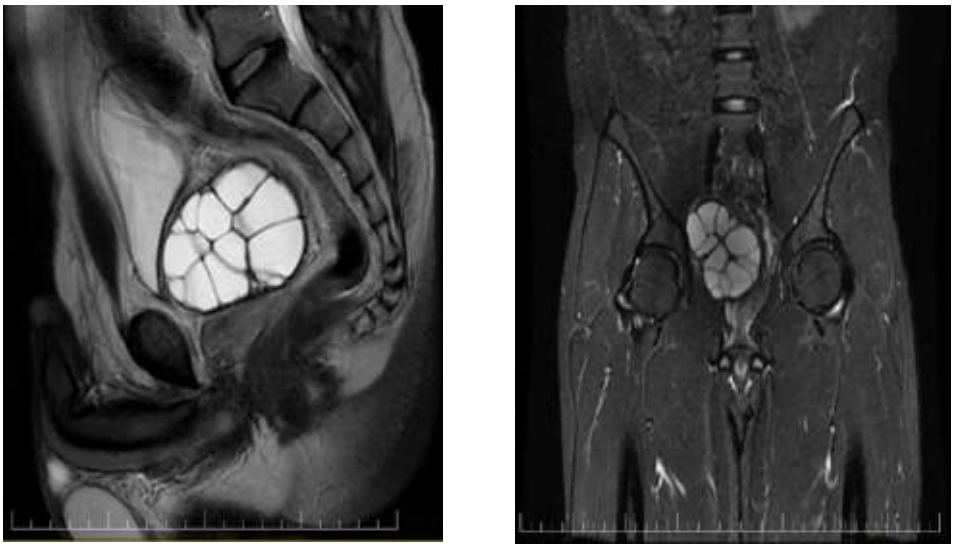


Figure 1. (a and b): MRI images of the cystic mass of the right seminal vesicle

Antibodies IgG anti-Echinococcus granulosus at the ELISA test were increased. Treatment with Albendazole (10 mg/kg/day) was initiated and surgical excision of the lesion was carried out with careful removal of the cyst to prevent any bursting and spillage, leaving the seminal vesicle preserved. The cystic lesion was subjected to histopathological examination. Histopathology confirmed the diagnosis of hydatid disease. Postoperative period was uncomplicated and patient was discharged on seventh postoperative day.

Discussion

In the sheep-raising communities of the Middle East, Central Europe, Australia, India, Turkey, and South America, hydatid illness is more common [3]. The kidney is the organ most commonly impacted by the uncommon urogenital tract echinococcosis (2-4%). There are extremely few occurrences of seminal vesicle involvement that have been documented in the literature [4-6]. Coexisting echinococcal cysts were discovered in various areas, particularly the liver, in the majority of these patients. Isolated pelvic and retroperitoneal hydatid cysts occurs rarely; in those instances when basic visceral lesions are absent, a pathogenic genesis through haematogenous or lymphatic pathways has been postulated. These cysts usually don't cause any symptoms until they start taking up space in nearby organs [1]. Thus, hemospermia, azoospermia, and difficulties voiding may be symptoms of a pelvic hydatid cyst. Unintentional discovery occurs frequently [1].

The hydatid cyst is often unilocular in its early phases. The cyst becomes larger, becomes multivesicular, and often multilocular as it matures, producing many daughter cysts. The cyst's walls are often smooth, thin, and well-defined, and the fluid inside is thin. When the cyst's feeding fluid runs out, the parasite perishes and the cyst wall either fully or partially calcifies. The most dangerous side effect of echinococcosis is rupture of the cyst, which can lead to an allergic reaction and the spread of the illness [6, 7].

Only eosinophilia can be detected by normal laboratory techniques. Numerous serological tests are available for hydatid disease screening, diagnosis, and follow-up in case the disease recurs. The Latex agglutination test and indirect haemagglutination test are examples of highly sensitive tests. Highly specific techniques such as enzyme-linked immunosorbent assay (ELISA), radioallergosorbant test, immunoelectrophoresis, and double diffusion test can be used to confirm a diagnosis [1]. In our patient ELISA test for hydatid disease was positive. The diagnosis of pelvic echinococcosis is mostly dependent on imaging tests, particularly computed tomography (CT), magnetic resonance imaging (MRI), and ultrasound (USG) (abdominal and transrectal). Echinococcal cysts can have several septations and thick walls. In addition to a fluid level, daughter cysts are frequently identified inside a large mother cyst (cyst within the cyst look). Our patient underwent abdominal MRI and ultrasound, which identified a pelvic hydatid cyst in connection with the right seminal vesicle.

The differential diagnosis of pelvic echinococcosis can be quite difficult and should include primary retroperitoneal sarcoma, teratoma, leiomyoma, Mullerian duct cyst, cyst or diverticule of the vas deferens/ejaculatory duct, prostatic retention cyst, and congenital or acquired cyst of the seminal vesicles (parasitic, infectious, or obstructive)[4].

The preferred course of treatment for hydatid cysts is still surgery. In 30–40% of cases, antihelminthic chemotherapy by itself may be beneficial. It works best for alveolar hydatid, less well for liver infections, and virtually not at all for conditions affecting the bone, brain, eyes, or other organs. The best treatment for a hydatid cyst is to remove the cyst entirely, taking great care to prevent punctures and parasite spills. The cyst was entirely excised from the patient while ensuring the preservation of the seminal vesicle. Albendazole was also used prophylactically.

The development of hydatidosis at the main sites and the local recurrence of the illness are late consequences that need to be considered. It is necessary to maintain routine follow-up with the patient while considering these options [8].

Conclusion

Hydatid cyst of seminal vesicle is rare and should be kept in differential diagnosis of a cystic lesion in pelvis especially in regions where hydatid disease is endemic. Proper surgical and medical management to avoid any recurrences, and a regular follow-up, are of utmost importance to detect any late complications such as local recurrence of the disease and development of hydatidosis at the primary sites.

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