Primary hydatid cyst of axilla and mesocolone: report of two rare cases

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Abstract:

Hydatid cyst disease can occur in all viscera and soft tissues, although the liver and the lungs are the most commonly involved organ. Primary hydatid cyst of the Axilla and mesocolon are very rare. In endemic areas of the world, including Iraq, a high suspicion of the disease is justified in any cystic neoplasm of any organ.

Introduction:

Hydatid disease (echinococcus granulosus) is endemic in the middle east as well as other parts of the world including India, Africa, South America, New Zealand, Australia, Turkey & Southern Europe (1-3). Infestation by hydatid disease in humans most commonly occurs in the liver (55-70%) followed by the lung (18-35%); the two organs can be affected simultaneously in about (5-13 %) of cases. (4, 5).

Even though hydatid cyst can occur in any organ here in I will present two rare localization of the hydatid cyst, the Axilla & Mesocolon hydatid cyst without involvement of other common sites to emphasize the fact that this disease should be highly suspected in the diagnosis of cystic lesion affecting any organ in the body especially in endemic areas of the world.

Case 1:

A 42-year old male Iraqi farmer presented to our hospital's outpatient clinic with history of right axillary swelling which was dated back to approximately one year, which was slowly increasing in size, until the last week of presentation, where it became painful making the patient seeking the medical advice. The patient has no history of recent trauma in the affected area. The patient’s surgical history, medical & family history were insignificant. The physical examination of the patient revealed that he was otherwise healthy, a febrile, there was a right axillary swelling about 4x5 cm with relative mobility, slightly tender, fluctuant, of smooth surface, well circumscribed, with normal overlying skin, non pulsatile & no palpable axillary lymph nodes, normal right breast. Investigations were normal complete blood count. Chest radiography revealed no paranchymal lung lesion. Sonography showed complex predominantly
cystic mass of about 4x5cm with heterogenous texture, with normal abdominal ultrasound, FNAC showed a picture consistent with abscess. Surgical excision of the cystic mass was done & submitted for histopathological examination. Gross examination of the cyst revealed a cyst contains clear fluid with multiple daughter cysts, microscopical examination confirm the diagnosis of hydatid cyst as shown in photograph NO.1. Draining of the operative site with suction drain removed in the 2nd post operative day & the patient run uneventful postoperative period & discharged well on albendazol for 3 months duration.

Case 2:
A 14-yearold male presented to history progressively increasing right hypochondrial mass of about one year duration associated with vague abdominal discomfort, in the last few days prior to his admission, he experienced that the pain is increasing in its intensity. On physical examination, the patient was ill looking, pale, slightly febrile, haemodinamically stable, no icterus, abdomen was soft, slightly tender palpable right hypochondrial swelling of about 11x12 cm of definite edge relatively mobile & fluctuant. Laboratory investigations were normal apart from mild anemia Sonography showed multilocular cystic swelling occupying the Morrison's pouch of about 13x12 cm in size. Operative finding on exploration revealed a cystic swelling arise from mesocolone occupying the Morrison pouch displacing the proximal part of the transverse colon downwards anteriorly. Enucleation of the cyst was done completely and meticulously, draining of the operative area with drain tube & closure.
The patient run uneventful post operative period the drain removed in the 3\textsuperscript{rd} post operative day & the patient discharged home in the 5\textsuperscript{th} post operative day albendazole 20 mg /kg for 3 months duration.

**DISCUSSION:**

Hydatid disease produced by Echinococcus granulosus still represents an important medical problem in many regions and a challenge in common surgical practice worldwide (6). Commonly affects the liver and the lung. However, the hydatid disease can affect any other organ or tissue of the body as it shown in table number (1) in descending order. When located in non-usual sites posses serious diagnostic problems. Correct diagnosis is essential for an adequate treatment and prevent serious misleading therapeutic attitudes and complications.

Diagnosis of hydatid disease of atypical location must be suspected when associated to liver or pulmonary cysts. However in unusual pure forms without any other organ involved diagnosis and correct management may represent a challenge.

Progress has been made on the biological diagnosis and immunological changes in hydatidosis due to Echinococcus granulosus (7,8,9,10) but its value remains complementary to imaging diagnostic procedures because of the number of false negative results due to no existing hypersensitivity to the antigen even in the presence of demonstrable disease.

Surgery remains the main treatment in hydatidosis with well founded criteria and approach in the most frequent locations of the disease: liver (11) and lung (12). Surgical planning and techniques are dependent on the number of cysts, the anatomical relations and anatomical changes produced by the parasite growth. Surgery is also the principal form of treatment in atypical forms of hydatid disease. Surgical approach and technique depends on correct diagnosis and if it has been made before or during operation. Every case is unique and different and must be considered in this manner.

| Table 1: Incidence of hydatid cyst affecting various organs/tissues |
|---------------------------------------------------------------|
| **Organs / tissues** | **Incidence** |
| Liver | 60\% |
| Lung | 30\% |
| Kidney | 2.5\% |
| Heart | 2.5\% |
| Spleen | Less than 2\% |
| Brain | |
| Bone | |
| Orbit | Only few cases reported |
| Urinary bladder | |
| Spinal extradural space | |
| Breast | |
| Submandibular gland | |
| Thyroid | |
| Muscle | |

However pre-operative medical treatment should be considered in order to sterilize the cyst, to decrease the tension in the cyst and thus reducing the chances of spillage and
resultant anaphylaxis. Intra operatively, the instillation of 0.5% cetrimide, 15% hypertonic saline or 0.5% silver nitrate solution before opening the cavity tends to kill the daughter cysts and thus prevents further spread and anaphylactic reaction. Post operative medical treatment reduces recurrence rate.

**Conclusion:**
We conclude that Echinococcus granulosus can affect any organ or tissue in the body & a high suspicion of this disease is justified in any cystic neoplasm of any organ especially in endemic regions (13).

**Acknowledgment:**
I would like to thank Dr Ramzy & Dr.Nada, Dept. of histopathology, al-karama general hospital for their kind assistance to obtain the relevant slides.

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