

Cutaneous fistulization: An extremely rare presentation of hydatid liver cyst in a child

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ABSTRACT

We report the case of a 10-year-old child who presented with a renitent lesion on the left abdominal wall. Clinical, radiological, and intraoperative findings concluded to a cutaneous fistulization of a hydatid cyst of the left lobe of the liver. The diagnosis was confirmed by histopathological examination. The child was successfully treated with a combination of medical and surgical management. Complicated hydatid disease should be considered in the differential diagnoses of patients presenting with cutaneous fistulization, particularly in regions where hydatid disease is endemic.

We report a case of spontaneous cutaneous fistulization of a hydatid cyst (HC) of the liver in a 10-year-old boy. The child was referred to our department for fever and a history of a progressively enlarging and painless swelling on the left side of the abdomen for the past two weeks. The patient had no significant past medical history. He has come into contact with dogs and livestock in his local surroundings.

On physical examination, there was a 5 cm x 5 cm renitent lesion on the left hypochondriac region with surrounding erythema (Fig. 1). The rest of physical examination was unremarkable. Abdominal ultrasound revealed a large, well-defined, cystic lesion in the left lobe of the liver with internal septations and daughter cysts, consistent with HC (Fig. 2). The chest radiograph was normal.

The patient was started on albendazole (15 mg/kg/day) and intravenous antibiotics. He underwent surgery the next day by laparoscopic approach. Numerous adhesions were found between the left lobe of the liver and the anterior abdominal wall (Fig. 3). The release of these adhesions revealed a large HC in the left lobe of the liver that had ruptured into the left subphrenic space and formed a fistula with the skin. Hydatid lesions passed beyond the muscular layer, protruded into fascia, subcutaneous soft tissue and fistulized in the skin (Fig. 4).

With laparoscopic needle, we punctured the protruding dome and we aspirated the contents in a careful way. Then we injected hypertonic serum to sterilize the cyst and extracted its proligerous membrane (Fig. 5). Always by laparoscopic approach, the fistula opening was dilated. Daughter vesicles and a large volume of HD fluid were drained. Finally, the protruding dome was resected and two drains were placed in

the hepatic and subcutaneous residual cavities.

Postoperative course was uneventful. Histopathological examination was consistent with a HC. Upon 6-month follow-up, there was no recurrence.

Spontaneous cyst-cutaneous fistula is an extremely rare complication of hydatid liver cyst [1]. However, it should be considered in the differential diagnoses of patients presenting with cutaneous fistulization, particularly in regions where hydatid disease is endemic [2]. Preoperative diagnosis can be quite challenging when there is no external discharge of cyst material. The diagnosis of HC is usually established by ultrasonography but computed tomography can be helpful in complicated cases [1]. Surgery is required to achieve complete evacuation of the cyst contents combined with medical treatment [1,3].

Ethical approval

Approval was obtained from the local medical ethics committee of Bechir Hamza Children's Hospital (Approval number: 07/2023).

Informed consent

Informed consent was obtained from the patient for the publication of this case report and the accompanying images.

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Fig. 1. Renitent lesion on the left hypochondriac region with surrounding erythema.



Fig. 3. Adhesions between the left lobe of the liver and the anterior abdominal wall.

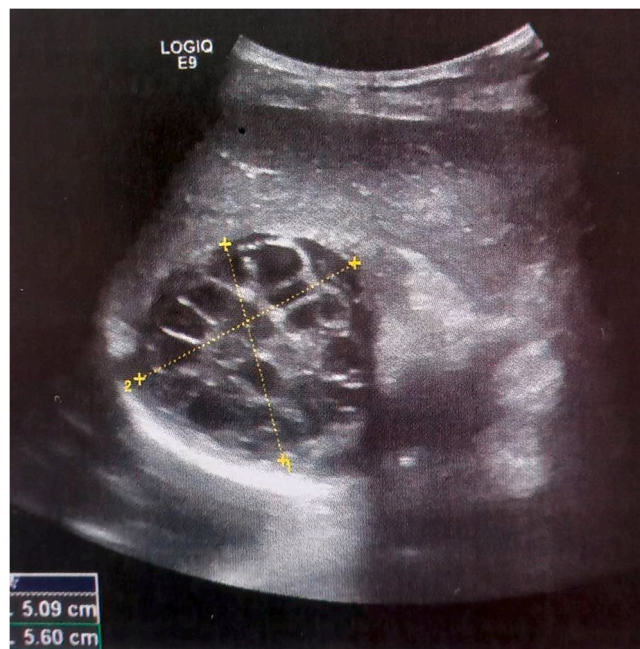


Fig. 2. Abdominal ultrasound revealed a large cystic lesion with internal septations and daughter cysts consistent with a hydatid liver cyst.

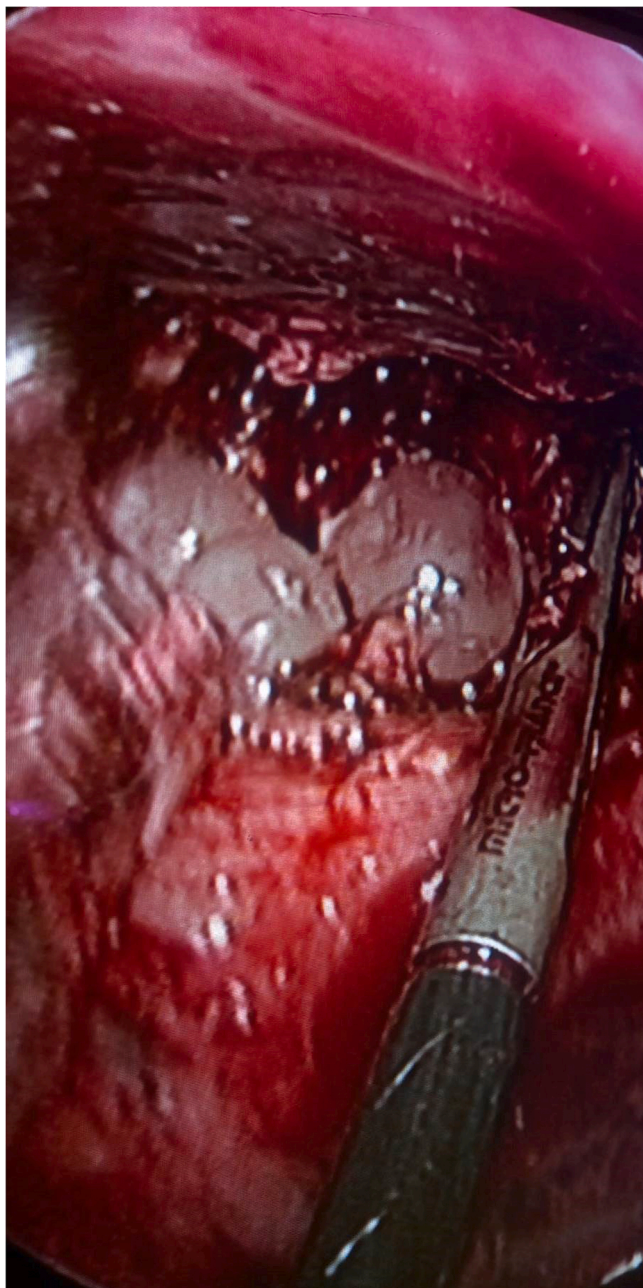


Fig. 4. Daughter vesicles passed beyond the muscular layer, protruded into fascia, subcutaneous soft tissue and fistulized in the skin.

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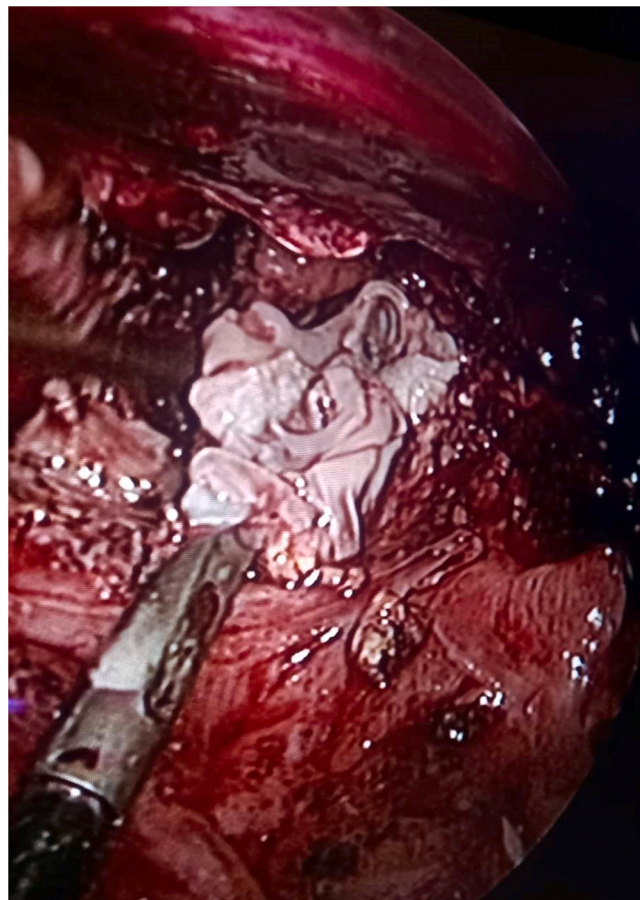


Fig. 5. Extraction of the proligerous membrane.

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Declaration of Competing Interest

No conflict of interest to declare.

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