

# Expulsion of a Hydatid Cyst from the Liver with Intact Proliferous Membrane into the Peritoneal Cavity in Children: About 01 Cases

A Doumbia<sup>1\*</sup>, Y Coulibaly<sup>2</sup>, M B Daou<sup>2</sup>, I Amadou<sup>2</sup>, Ouattara K<sup>3</sup>, O Coulibaly<sup>2</sup>, B Kamate<sup>2</sup>, MK Djire<sup>2</sup>

<sup>1</sup>Pediatric Surgery Unit of the Mohammed VI Périnatal Clinic

<sup>2</sup>Pediatric Surgery Department of CHU Gabriel Touré

<sup>3</sup>Anesthesia-Resuscitation service of the Reference Center of Commune II of Bamako

DOI: [10.36347/sasjs.2024.v10i03.006](https://doi.org/10.36347/sasjs.2024.v10i03.006)

Received: 14.12.2023 | Accepted: 18.01.2024 | Published: 08.03.2024

\*Corresponding author: A Doumbia

Pediatric Surgery Unit of the Mohammed VI Périnatal Clinic

## Abstract

## Case Report

**Introduction:** Peritoneal hydatid disease (HP) is a parasitic condition secondary to seeding of the peritoneal serosa, primary or secondary, by *Echinococcus granulosus* larvae. **Observation:** Child aged 06, male, with no known history, admitted for diffuse abdominal pain lasting for 3 days in a context of fever; in whom the clinical examination revealed a peritoneal irritation syndrome. Ultrasound and abdominal CT showed the presence of a hypogastric cystic mass. Surgical exploration revealed a hydatid cyst with intact proliferous membrane free in the peritoneal cavity. **Conclusion:** Peritoneal hydatidosis with expulsion of a hydatid cyst from the liver with intact proliferous membrane into the peritoneal cavity is rare. Its treatment is surgical and the outcome is most often favorable.

**Keywords:** Hydatid cyst, liver, proliferous membrane intact, peritoneum, child.

**Copyright © 2024 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Peritoneal hydatid disease (HP) is a parasitic condition secondary to seeding of the peritoneal serosa, primary or secondary, by *Echinococcus granulosus* larvae.

It is most often secondary to the rupture or cracking of hydatid cysts (HK), particularly hepatic ones.

## OBSERVATION

6-year-old child, male, with no known history, consulted urgently for diffuse abdominal pain lasting for 3 days, complicated one day ago by a cessation of matter and gas with vomiting in a context of fever and conservation of blood. Condition. A Clinical examination revealed a patient with fever at 38°C with generalized abdominal guarding. Biologically, we noted hyperleukocytosis at 24,000 elements/mm<sup>3</sup>, CRP at 142 mg/l. The unprepared abdominal X-ray revealed some hydro-aerial levels with diffuse grayness (Fig1). Abdominal ultrasound and CT showed the presence of a hypogastric cystic mass (Fig. 2) with moderate peritoneal effusion in the inter-loops and in the cul de sac of Douglas. Hydatid serology was positive.

The patient underwent emergency surgery for generalized peritonitis. We performed a median

subumbilical approach enlarged above the umbilical, we discovered a suspicious peritoneal effusion with an intact proliferous membrane delivered in the peritoneal cavity (Fig 3 and 4). Postoperatively, broad-spectrum antibiotic therapy and antiparasitic treatment with albendazole were undertaken. The postoperative course was simple. After 04 months, the evolution was favorable.



Fig. 1: ASP: hydro-aerial level with diffuse grayness

**Citation:** A Doumbia, Y Coulibaly, M B Daou, I Amadou, Ouattara K, O Coulibaly, B Kamate, MK Djire. Expulsion of a Hydatid Cyst from the Liver with Intact Proliferous Membrane into the Peritoneal Cavity in Children: About 01 Cases. SAS J Surg, 2024 Mar 10(3): 293-295.



**Fig. 2: CT: A hypogastric cystic formation**



**Fig. 3: Free hydatid cyst in the abdominal**



**Fig. 4: Unruptured proligerous membrane**

## DISCUSSION

Peritoneal hydatidosis represents between 5 and 16% of hydatid infections [1]. It is rare in its primary form [2, 3], and the secondary form is often due to a hepatic location.

The expulsion of an intact proligerous membrane from a hydatid cyst of the liver into the peritoneal cavity is a very rare clinical entity and therefore little known by clinicians. To our knowledge, only three cases have been reported in the literature [4].

The clinical picture is that of diffuse abdominal sensitivity or defense [4, 5], the same is true for our patient. In these particular cases, ultrasound and abdominal CT do not make it possible to confirm the diagnosis with certainty due to the absence of the characteristic wall of the hydatid cyst; the diagnosis is most often made intraoperatively. The diagnosis was confirmed by hydatid serology, the reliability of which is 98% [6], like the case of our patient.

The treatment of peritoneal hydatid cyst is surgical and includes certain precautions to avoid dissemination. The approach must be wide, the operating field is protected by scolicide solutions. The effectiveness of medical treatment based on albendazole has been reported by several teams [7, 8]. We used it to avoid recurrence of the hydatid cyst as in the case of our patient at a dose of 15 mg kg<sup>-1</sup> per day in three courses of 21 days.

## CONCLUSION

Peritoneal hydatidosis with expulsion of a hydatid cyst from the liver with intact proligerous membrane into the peritoneal cavity is rare. Its treatment is surgical and the outcome is most often favorable.

## REFERENCES

1. Louzi, A., Jgounni, R., & Narjis, Y. (2011). L'hydatidose péritonéale: A propos de 27 cas. *J. Afr. Hépatol. Gastroentérol*, 5, 303-307.
2. El Mansari, O., Zentar, A., Sair, K., Sakit, F., Bounaim, A., & Janati, IM (2000, May). Peritoneal hydatidosis. About 12 cases. In *Annals of Surgery* (Vol. 125, No. 4, pp. 353-357). Elsevier Masson.
3. Karim, E. (1981). Localisations abdominales et péritonéales exceptionnelles du kyste hydatique. À propos de deux cas. *Ann Chir*, 35, 109-13.
4. Acer, T., Karnak, İ., Haliloglu, M., Ekinçi, S., & Şenocak, M. E. (2008). Spontaneous expulsion of intact germinative membrane of liver hydatid cyst in a child. *Journal of Pediatric Surgery*, 43(7), e23-e25.
5. Sharma, B. G., & Gupta, K. K. (2000). Spontaneous intraperitoneal expulsion of an unruptured hydatid cyst. *Saudi medical journal*, 21(1), 99-102.

6. Haddad, N., Tabbane, S., & Ellouze, N. (1976). Aspects cliniques et problèmes de diagnostic des échinococcoses du péritoine. *Tunis Méd*, 54, 753– 64.
7. Horton, R. J. (1989). Chemotherapy of Echinococcus infection in man with albendazole. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 83(1), 97-102.
8. Saimot, A. G., Cremieux, A. C., Hay, J. M., Meulemans, A., Giovanangeli, M. D., Delaitre, B., & Coulaud, J. P. (1983). Albendazole as a potential treatment for human hydatidosis. *The Lancet*, 322(8351), 652-656.