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# **Giant Complicated Hydatid Cyst Of The Liver And Occult Duodenal Adenocarcinoma: A Case Report**

**Giovanni Guercio**

University Researcher

GEN.UR.T.O. ( Department of General Emergency and Transplant Surgery)

Unit of General and Geriatric Surgery

University Hospital Policlinico "P. Giaccone"

Palermo Italy

**Calogero Ricotta MD**

GEN.UR.T.O. ( Department of General Emergency and Transplant Surgery)

Unit of General and Geriatric Surgery

University Hospital Policlinico "P. Giaccone"

Palermo Italy

**Guiseppe Diana**

Full Professor of Surgery

GEN.UR.T.O. ( Department of General Emergency and Transplant Surgery)

Unit of General and Geriatric Surgery

University Hospital Policlinico "P. Giaccone"

Palermo Italy

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## Abstract

We present an original article about an interesting and challenging case: a patient with abdominal discomfort, dyspepsia due to a giant hydatid cyst of the liver causing obstruction of upper digestive canal, reduction of hepatic function, hepatomegaly and hiding an occult duodenal adenocarcinoma marked by a very fast evolution.

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## Introduction

Hydatid disease caused by infection with *Echinococcus granulosus* tapeworm or *E. multilocularis* is endemic in the Mediterranean basin, Central Asia, Africa and South America. However, as a result of increased migration and immigration, hydatidosis is becoming a worldwide health problem.<sup>1,2</sup>

The key for a successful management is early detection by medical imaging and early intervention. However, treatment of liver hydatid disease is still a debated matter.

According to WHO Guidelines, chemotherapy with albendazol is the treatment of choice when surgery or PAIR (puncture- aspiration- instillation- re-aspiration) are not feasible or technically available.

Operative therapies are represented by minimally invasive (PAIR) and open or laparoscopic surgical procedures. Anyway, surgery is the cornerstone for radical treatment of hydatid liver disease.<sup>2,3,4</sup>

The target of therapy is to treat local disease, its associated complications and to avoid disease recurrence.

It is also important to underline that all the operative procedures should be carefully chosen since hepatic hydatidosis is considered a benign disease.

The aim of this paper is to present a challenging and interesting case report of a patient with a giant hydatid cyst of the liver causing obstruction of the upper digestive canal, reduction of hepatic function, hepatomegaly and hiding an occult duodenal adenocarcinoma.

## Case Report

A 62-year-old man was referred to our unit for dyspepsia, abdominal tension and upper intestinal obstruction.

Some days before, he experienced nausea, vomiting and abdominal discomfort. At the time of admission the patient was in bad general condition.

Physical examination showed a giant palpable mass extending from the upper abdomen to 3 cm below the umbilicus.

Ultrasound and CT scan showed three 20 cm lesions occupying the major part of the liver parenchyma (figure 1). The cysts were detached and compressed the liver, the hepatic veins, the intra-hepatic vena cava, the second part of the duodenum and the right kidney. There was not any finding of duodenal obstruction or pancreatic head neoplasm. The biliary tree was dilated (choledochus 2 cm). We considered this bile-ducts dilatation as the consequence of external compression from the cysts. There was also a severe gastrectasia.



Figure 1: CT scan showing three 20 cm lesions occupying the majority of the liver parenchyma. Two cysts were detached and compressed the liver, the hepatic veins, the intra-hepatic vena cava, the second part of the duodenum and the right kidney. The biliary tree was dilated (choledochus 2 cm). There was also a severe gastrectasia.

One day after admission, the patient was started on albendazole 400 mg twice daily.

Six days after admission, we started parenteral nutrition (P.N.), because of the patient's nutritional condition.

Two weeks after admission, we operated the patient. We tried to remove the whole cyst, but a part of the cystic wall was tightly attached to the liver. Considering the hepatic function, we decided to do a partial pericystectomy and avoid a partial hepatic resection. During surgery, we did not find duodenal or pancreatic carcinoma. Soon after surgery the patient continued P.N. and started eating

liquid food.

We leaved suction drains in and behind the liver. After few days the drains showed the presence of a high-flow biliary fistula<sup>5</sup>.

A week after surgery the patient had another episode of vomiting, nausea and abdominal discomfort. The patient also started to have fever (39 °C). We considered different causes: a) viral infection; b) abdominal bacterial infection; c) peritonitis; d) another digestive obstruction. We started antibiotic therapy with ciprofloxacin 400mg and metronidazole 1g daily. We made blood exams that did not show any sign of infection. So we tried to evaluate the hypothesis of another obstruction. We made a duodenal dynamic radiography that showed an obstruction of the second part of the duodenum. We also decided to do a gastroscopy that confirmed the duodenal obstruction and we made some biopsies.

The histological examination showed an adenocarcinoma of the duodenum, that we did not consider in our differential diagnosis since the first CT scan and the surgical exploration of the abdomen did not show any sign of duodenal obstruction or pancreatic head carcinoma.

Owing to the patient's condition and the duodenal obstruction we decided to operate him for the second time.

We planned two types of operation: pancreatoduodenectomy or palliative surgery.

During the operation we made a cytological examination of the ascitic liquid we found in the abdomen that showed the presence of atypical cells.

Considering the bad general condition of the patient and the results of pancreatoduodenectomy, we decided to do a palliative operation (gastro-enteric anastomosis and a cholecystojejunal anastomosis).

After this operation the patient started eating again and stopped parenteral nutrition.

After one month we evaluated the extention of the adenocarcinoma with a CT scan that showed a cancer involving the head of pancreas and the second part of the duodenum, metastases extended to the liver (S2,S4-S5) and to the hepatic, aortic and pancreatic lymphnodes. There was also a compression of the right kidney and the vena cava. Choledochus and Wirsung duct were dilated.

# **Discussion**

We present this case because, according to our knowledge, it is interesting and shows how it is possible to miss an important diagnosis.

We treated a benign disease (liver echinococcosis) that worsened the patient's quality of life. There were no clinical and radiological elements that could suggest a duodenal and pancreatic neoplasm.

The cancer showed to have a very quick diffusion. So we decided to do palliative surgery after considering the bad general condition of the patient and the survival after pancreatoduodenectomy.

We visited this patient again one month ago and he showed all the clinical features of a patient with advanced cancer.

## **Competing interests**

There are no competing interests and there is no conflict of interest.

## **Authors' contribution**

The authors contributed equally to this work

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Written consent was obtained from the patient or their relative for publication of study

## **Corresponding author**

Calogero Ricotta,

Via Liborio Giuffrè n° 5, 90100

Palermo, Italy.

Phone: +393391609919.

Fax: +390916553795- 2713.

E-mail: [[calogericotta@yahoo.com](mailto:calogericotta@yahoo.com)]

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