
PRIMARY HYDATID CYST OF THE PANCREAS*QUISTE HIDATIDICO PRIMARIO DE PANCREAS*

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Abstract

Hydatid cyst of the pancreas is a rare location of this disease. We study the case of a female patient with primary hydatid cyst of the pancreas coming from an endemic area and presenting pain and palpable tumor in epigastrium and right upper abdomen. The patient was studied with ultrasound scanning and CT scan in which it was interpreted as hydatid liver cyst. Pancreatic location was determined in surgery. Primary hydatid cyst of the pancreas must be taken into account as differential diagnosis with cystic lesions of the pancreas.

Key Words: Hydatid cyst of the pancreas. Pain and palpable tumor in epigastrium and right upper abdominal. Differential diagnosis with cystic lesions of the pancreas.

Resumen

El quiste hidatídico de páncreas es una localización rara de esta enfermedad. Se estudia el caso de una paciente de sexo femenino con quiste hidatídico primario de páncreas, proveniente de una zona endémica con sintomatología de dolor y tumor palpable en epigastrio e hipocondrio derecho, fue estudiada con ecografía y tomografía en las cuales se lo interpretó como quiste hidatídico hepático, determinando la ubicación pancreática en el intraoperatorio.

Se debe tener presente el quiste hidatídico primario de páncreas como diagnóstico diferencial con los tumores quísticos del páncreas.

Palabras Claves: Quiste hidatídico de páncreas. Dolor y tumor palpable en epigastrio e hipocondrio derecho. Diagnóstico diferencial con los tumores quísticos de páncreas.

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Introduction

Hydatid cyst disease continues being a serious health problem in areas where it is endemic such as in countries around the Mediterranean Sea, Oceania and South America ⁽¹⁾. The liver and the lungs are the most frequent locations, but it can appear in any organ or soft tissue. Exclusive pancreatic location represents 0.2% of the abdominal location ⁽²⁾.

Having treated this hydatid cyst of the pancreas through surgery and its low incidence has motivated us to present the case.

Material and Method

Clinical case:

Eighteen-year-old-female patient coming from Chaco, Argentina, is hospitalized due to palpable mass in epigastrium and right upper side. Patient informs that tumor size has increased over the last five years. At physical examination a painless palpable tumor is observed, renitent, 8 cm in diameter, protuberating in right upper abdomen and epigastrium and moving with breathing movements. Abdominal ultrasound shows liver increased in size due to 8.3 x 10 cm cyst-like formation with dense content showing images of membranes and calcifications in the interior, thick and irregular capsule comprising and pushing vascular structures with no dilation of main hepatic biliary track. Type IV according to Gharbi classification⁽³⁾.

CT scan shows heterogeneous liver increased in size due to hypodense formation with liquid aspect septet with peripheral calcium component depending on the right lobe of 12 x 13 x 11 cm; no abnormalities in the rest of the study. (Image 1) (Image 2).



Image 1: Abdomen TC Scan showing image in right lobe of septate liquid appearance of 12x13x11 cm

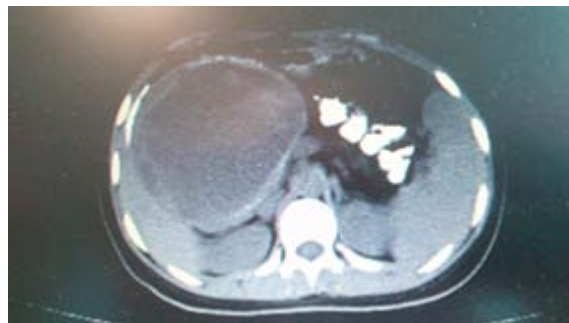


Image 2: The same collection with peripheral calcic component depending on right lobe

Chest X-ray is normal. Hydatid serology indirect hemagglutination (IHA) was negative. Other lab tests were normal. Patient was treated with Albendazol 3 weeks before surgery.

The patient is approached through a bi-subcostal incision, abdominal semiology showed portal segmental hypertension and a huge pancreatic cyst of about 12 cm of diameter pushing the stomach, the liver free of disease and the transverse colon (Image 3) (Image 4). After the protection of the surgery field, sterilization of cyst content with hypertonic saline solution was performed. Later, puncture and aspiration of the cyst using Finochietto's trocar (Image 5) followed by unroofing with evacuation of residual content and resection of inner membrane (Image 6). Exploration of residual cavity does not show pancreatic fistula, finally epiploplasty is performed and drainages are placed in surgical area.



Image 3: Abdominal semiology showed portal segmental hypertension and a huge pancreatic cyst; liver is free of disease.



Image 4: Cyst of 12 cm of diameter pushes stomach and transverse colon.



Image 5: Punction and aspiration using Finocchetto's trocar.



Image 6: Unroofing of the cyst, evacuating residual content and resecting inner membrane.

Postoperative period went on free of complications with tachycardia without apparent cause, reason why the patient stayed 48 hours in ICU, then she was transferred to a normal room. Drainages drained serous-sanguineous fluid, amylase of this liquid was measured out: 27 IU/ L. Drainages are removed on the 4th day; patient discharged 6 days after surgery.

Parasitology test of intracystic fluid does not show protoscolices or larval hooks of Echinococcus. Anatomy pathology indicates hydatid cyst of the pancreas.

Discussion

The location of a pancreatic cyst is very rare; 0.2% is intra-abdominal ⁽²⁾. Implant in this organ is done through the blood after going through the double filter of liver and lung ^{(4) (5)}. Its location is usually cephalic in 57% of the cases, in the body 24% and in the tail in 19% of the cases ⁽⁴⁾. The cyst develops intra-parenchymatous in 35% of the cases and periphery exteriorized from its surface in 65% of the cases ⁽⁶⁾.

Abdominal pain is the most frequent reason of consultation. Within possible complications during its evolution, we can mention jaundice due to compression ^{(6) (7)}, cyst suppuration ⁽⁸⁾, chronic pancreatitis, intra o retro peritoneal rupture, cyst fistula towards neighboring organs ^{(9) (10)}, portal segmental hypertension, and acute pancreatitis due to communication with Wirsung's duct ⁽¹¹⁾. In our patient the clinical presentation was pain with palpable tumor located in epigastrium and right upper side.

Differential diagnosis may be difficult in images, the presence of calcifications on a wall not enhancing with contrast material and the observation of daughter cysts in the interior are signs towards the hydatid nature of the tumor ^{(12) (13)}. When these symptoms are not present the possibility of diagnosis of other types of pancreatic cyst tumors must be considered, and in these cases serology and epidemiological background can contribute to a positive diagnosis. However, negativity in serology does not rule out hydatid diagnosis in a cyst tumor of the pancreas.

Nevertheless, accurate diagnosis is decided in surgery. Taking into account the fact that the content of some hydatid cysts can be sterilized

throughout time and due to their similarity to other types of tumors such as mucinous cystadenoma or cystadenocarcinoma, intra-operative biopsy may be necessary to confirm diagnosis ⁽¹⁴⁾, as in our case. In this biopsy it is important to check the presence or not of epithelium on the cyst wall; since this can demonstrate the tumor type; cyst tumor of the pancreas or a hydatid cyst which does not have epithelium on its wall.

Treatment of the hydatid cyst of the pancreas is surgical. It will depend on the cyst location and the existence of a possible pancreatic fistula. In body-tail location, a left pancreatectomy allows the resection of the cyst and the suture of the pancreas on healthy tissue; the traditional treatment (unroofing) will be performed in cases of big cysts adhering to neighboring organs and when dissection may be dangerous. In our observation, conservative treatment was performed due to proximity to neighboring organs and the aorta. In cephalic cysts treatment will be unroofing and in cases of evidence of pancreatic fistula in any location cyst-digestive anastomosis will be performed after evacuation. Cephalic pancreatectomy is considered an exaggeration for the treatment of a benign pathology ⁽¹²⁾⁽¹⁴⁾⁽¹⁵⁾.

Conclusion

The hydatid cyst of the pancreas is a rare entity; diagnosis is relatively simple if it exits together with other typical hydatid location. However, it can be more difficult if pancreatic location is exclusive. Surgery is always the treatment.

Conflicts of interest: The authors declare that there is no conflict of interest regarding the publication of this paper.

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