

Case Report

PERITONEAL HYDATIDOSIS ABOUT 50 CASES

Mountassir Moujahid* , Hicham Iraqui* , Mohamed Rhari** , Issam Serghini*** ,
Moulay Hassan Tahiri*

- * Departement of surgery
- ** Departement of radiology
- *** Departement of reanimation

5th Military Hospital Guelmim Morocco

Adress of correspondance : Mountassir Moujahid
Résidence ibnou khaldoun, B40, rue oued el makhazine, Harhoura – Temara. MAROC

E-mail : m.moujahid@gmx.fr



OPEN ACCESS

This work is licensed under a [Creative Commons Attribution 4.0 International License](http://creativecommons.org/licenses/by/4.0/).

Abstract

Retrospective study of 50 cases of peritoneal hydatidosis. The incidence of this disease was 6,25%, the sex ratio was about 2/1 and the mean age was 32 years. Peritoneal hydatidosis disease was most frequently secondary to the rupture of hydatid cyst in the liver (84%) ,more rarely in the spleen (4%). The principal symptoms were unusual abdominal pain and abdominal masses. Ultrasound scan is the radiological method of choice for investigation and for assessing the number of hydatid cysts in the abdomen. It was used in 40 cases and led to diagnosis of the disease in 95% of these cases. The CT scan for topographical diagnosis was about 90%. Serological tests were negative for the eight cases. Total cyst removal was performed in twenty patients, peri kystectomy in 25 cases and marsupialization in five cases. No patient was treated with albendazole. The morbidity was 20%. We observed one case of small bowel occlusion due to a missed vesicle , two abscesses of the residual cavity, one case of pleurisy and one case of unexplained fever syndrom . No recurrence over a followup period of twelve years. **Copyright © WJMMS, all rights reserved.**

Key Words: hydatid cyst, peritoneal, unusual location, peritoneal hyatidosis, diagnostic and treatment

INTRODUCTION :

The echinococcosis is a cosmopolitan antropozoonosis, affecting the man and some mammals, connected to the development in the body of the embryonic shape or hydatique of a tape worm of the dog called echinococcus granulosus.

The peritoneal hydatidosis is the sowing of the serous in a primitive or secondary way. It can be caused by the massive break of a visceral hydatid cyst realizing the acute anaphylactic shock. Somewhere else, the discreet fissuring are the most usual realizing peritoneum cysts. So the peritoneal hydatidosis appears under polymorphic clinical paintings according to the anatomical localization of cysts. It is the disease which puts a real problem of public health in our country.

MATERIEL AND METHODS:

We report a retrospective study of 50 cases of peritoneal hydatidosis brought over a period of fifteen years (1994-2008). This affection represents 6,25 % of 800 hydatid cysts operated in the service any localizations confused during the same period. The frequency of the other localizations divides up in the following way: liver (77,8 %), lung (5,5 %), develops the muscle (4,2 %), spleen (3,3 %), kidney (2,2 %). The average age of our sick is of 32 years with extremes going from 9 to 66 years old.

The sex ratio is 2/1 .The origin countryman was noted in 20 cases, six of the sick were operated for a hydatid cyst of the liver. The peritoneal hydatidosis was primitive at ten sick (20 %). The clinical symptom is dominated by the atypical pains and the abdominal masses. The lung radiography showed six times an extra height of the diaphragmatic dome in touch with hepatic hydatid cysts . The radiography of the belly without preparation objectified two abdominal opacities and signs of abdominal occlusion further to the break of a hydatid cyst of the liver in the peritoneum.

The abdominal echograph realized forty times, asserted the diagnosis in 95 % of the cases. The scanning was realized at ten sick only, its reliability is 90 % of the cases for the topographic diagnosis. The serology realized at eight sick was negative. All the sick were operated and at first the most used is the median. The per operatory exploration showed ten at the level of the big epiploon , 8 in the douglas, 3 at the level of the mesenteric, 2 in the young epiploon and 2 at the level of the cross mesocolon. The lesional association was with 20 hepatic hydatid cysts , two spleen hydatid cysts , a hydatid cyst of the diaphragm and a cyst of the pancreas.

The treatment of peritoneum cysts consisted of a total kystectomy in 20cases, associated with an omenectomy every time it was necessary. A total perikystectomy was realized at 25 sick and a resection of the dome jutting out at 5 others, all situated at the level of the douglas. The used scolicide was always some hydrogen peroxide in 10 volumes. The treatment of the residual cavity called on to the padding every time we realized a resection of the striking dome. The associated gestures consisted of a resection of the dome jutting out for 15 hydatid cysts of the liver and 5 partial perikystectomy , a resection of the dome for the cyst of the diaphragm and a total for hydatid cysts of the spleen.

The medical treatment with Albendazole was not used for all our sick.

The duration of hospitalization was of 15 days with extremes of 10at 60 days. The mortality is nil . The morbidity is of the order of 20 %, made by an occlusion of hail by a vesicle omitted on the mesenteric and taken back surgically in third days, three abscesses of the douglas on an infected bruise handled draining , a pleurisy punctured and an unexplained feverish syndrome which evolved well under treatment. The backward movement is of twelve years without any sign of second recurrence.

DISCUSSION

The frequency of the peritoneal hydatidosis varies between 1,4 and 9, 4 % (1, 2). The peritoneal hydatidosis can be primitive or secondary: the primitive shape is exceptional and is made either by hematogenic way, or by migration altogether of a hydatid cyst most of the time hepatic, having broken adventitious and kept sound its intact membrane (3,4) .The secondary shape is often due to a fissuring or a break of a hepatic hydatid cyst ,more exceptionally of spleen (5), was favored by a sometimes small and often underestimated trauma. The anatomopathologic Aspects differ as the hurts are premature or late.

In the early types we can have:

- A hydato peritoneum, represented by a hydatid liquid spread in the abdominal cavity;
- A hydatido peritoneum, which is a migration of the membrane, intact or opened in the abdominal cavity;
- A hydatido chole peritoneum: it is the biliary shape which results from the break of a hydatid cyst of the liver;
- A hydatido hemo peritoneum;
- A break of an infected cyst generating a generalized acute peritonitis;

The late forms, as for them, are made by cysts hydatid cysts implanted in the abdominal cavity. They are either located, or generalized and grave in this case. The peritoneal hydatidosis is clinically polymorphic and often puzzling by the extreme diversity of the localizations of hydatid cysts . The abdominal pain can be diffuse, violent and stabbing (4,6). It signs the perforative peritonitis and the rough flood of the peritoneum if it is preceded by a trauma .this pain can be limited during several weeks, signing the fissuring of the primitive cyst in the peritoneum. The seat of the pain differs according to the localization of the cyst

The abdominal tumoral symptom can be found and has to make evoke the diagnosis of peritoneal hydatidosis to a subject in good condition general, especially if it is associated with a hepatic mass (2,7) .The compressif phenomena compressif to type of subocclusion (4,5), of portal high blood pressure, of retentionnel icterus (8) or of urinary compression can be a circumstance of discovery. The pelvic touches represent a major time of the clinical examination by perceiving one or several pelvic tumors (4,6) .The hepato splenomegaly must be carefully looked for, either testifying of a hepatic hydatidosis or spleen hydatidosis, or secondary in a portal high blood pressure. The ascite by break intra peritoneal of the hydatid cyst, is found in 10 % of the cases (4) .The signs of the allergy go of the dramatic accident of in the quickly mortal anaphylactic shock by acute oedema of the glottis, in the clinical signs more eased to type of pruritus, dyspnoea and nettle generalized rash (3,9) .The asymptomatic forms are frequent, often discovered during a balance sheet of extension .There were observed to 5 of our patients.

The biological examinations are not specific. The hypereosinopheliy can be especially noticed during a crack or during a break. The serology allows a diagnosis of the hydatidosis in 85 % of the cases (4, 7). His negativity

does not eliminate the diagnosis of a hydatid infringement, its role is certain in the surveillance post operating in search of a possible second recurrence. The medical imaging is an essential stage in the diagnosis of this hydatidosis. The standard radiography can highlight deformations of domes or calcifications limited in case of old-looking cysts. The echograph plays an essential role in the diagnosis of the abdominal hydatid localizations (3,4,8). The classification of Gharbi and Hassine distinguishes 5 types:

- type I: pure liquid collection
- type II: collection liquid in divided into halves wall
- type III: multi vesicle collection
- type IV: pseudo tumoral rounded mass
- type V: cyst with calcified wall

The echograph allows to notice a possible ascite and plays a role in the balance sheet of extension. its diagnostic reliability varies of 90à100 % (). The topographic reliability is however uncertain but changes not at all the surgical attitude (3,10). The scanning revolutionized the lesional and topographic diagnostic approach regarding abdominal hydatidosis .The advantages of the scanner by contribution in the echograph are:

- a better identification of the little specific aspects found in the echograph (types I and IV);

the diagnosis of organ in spite of certain limits inherent to the size;

- the easy enumeration of cysts;
- the excellent topographic reliability;
- a better detection of the complications;
- a good study of reports with vessels and urinary tree avoiding the angiography and the urography intra venous;
- a better post-operative surveillance.

The magnetic resonance imaging has not made the proof of its particular interest in the hydatidosis yet and does not seem to give information superior to the other methods of imaging (8) It would be however useful in the study of the vascular reports (8,9).

The treatment is essentially surgical (3,4,6,11) and aims at handling at the same time peritoneum cysts and the primitive hydatid cysts. The way at first has to realize a correct exposure of cysts, allow an easy abdominal exploration and handle the associated hurts .The median laparotomy is the most used (10,12), with however difficulties for the cysts of the right liver (3,4,8), making way in one under costal or the combined way .The exploration of the abdominal cavity must be complete without forgetting the bottom of bag of douglas, the retro peritoneum and kidneys (7,9) .She must be meticulous and careful to avoid a peritoneum scattering (10,13). The operating protection must be necessarily taken is the protection of the operating site by soaked fields with parasiticides before any operation on the cyst (8,12).

The elimination of the parasite can be made of two manners:

- Total excision of the cyst
- Draining evacuation and sterilization by scoliced intra cystic during 5at 10minutes: the hydrogen peroxide is the most used in our practice regarding surgery abdominal hydatid.

The abolition of the remaining cavity stays the controversial point of the surgical treatment. The latter can be made either in a radical way, or in a preservative way. The radical methods allow to avoid the infectious

complications bound to the obstinacy of the perikyste. There are represented by:

- The total kystectomy which consists of the ablation of all the cysts without opening nor sterilization prerequisites,

- The total perikystectomy, that is the total excision of the cystic wall later after sterilization and evacuation of the contents. She is not used when the cyst is young or infected.

The risks connected to the radical methods are the vascular wounds and perforing of the hollow organs (hail, colon, rectum, bladder, ureter) (13,14).

The conservative methods raise essentially the problem of the residual cavity .Some methods are recommended:

- the marsupialisation: joining up the cystic cavity at the skin, abandoned at present;
- the partial perikystectomy practiced especially when there are adhesions of the cyst to vascular or biliary elements:

- the resection of the striking dome, easy to realize, not hemorrhagic, it requires a drainage of the residual cavity.

This method presents an indisputable septic risk which is shared in the partial perikystectomy.

Regarding peritoneal hydatid cysts , it is the large number of peritoneal transplants that makes the difficulty of the intervention (5,9).The risk is to underestimate a very small vesicle girl in peritoneal folds, in a little bit fat epiploon, in depth of a hypochondria. It is the case of the sick person who made an occlusion of hail on a vesicle girl omitted on the mesenteric. The multiplicity of cysts can bring the surgeon to associate several processes during the same intervention, or to practice iterative interventions (11,13,15).

The epiplooplasty must be always practiced to fill the residual cavities .The drainage of the peritoneal cavity by aspiratifs drains remains a gesture discussed, this drainage is systematic at all our sick. The peritoneal contamination by the hydatid material represents one of the best indications of the medical treatment. Various authors recommended Albendazole in the inoperable cases or as a supplement to the surgery (2,5,6,13).

The forecast depends on the general state of the patient, on the evolutionary stage of the peritoneal hydatidosis, the topography of the cyst and the quality of the surgical act. The mortality is 8 at 20 % (3,4,8,11, 13), while it was nil in our series. The morbidity is 20 % in our study. Made essentially of collections to type of abscess of the douglas . Second recurrences are frequent regarding peritoneal hydatidosis (10 at18 %) (3,12). No case of second offense was indicated on a backward movement of twelve years.

CONCLUSION

The peritoneal hydatidosis is often secondary in a break or in a discreet crack of a hepatic hydatid cyst . The clinical symptom is very polymorphic going of the simple fortuitous discovery to the shape generalized via certain compressives forms. The medical imaging is an essential stage in the diagnosis of the hydatidosis based on the echograph and the scanning. The treatment is surgical coupled in some cases with the medical treatment with Albendazole.

REFERENCES

- [1] Chironi G, Scanu AM, Lamberti MA, Ena MA, Carta A, Cossu ML et al Peritoneal hydatidosis .Ann Ital Chir. 1994; 65(6):641-648
- [2] Karavias DD, Vagianos CE, Kakkos SK, Panagopoulos CM, Androulakis JA. Peritoneal echinococcosis. World J Surg. 1996;20(3):337-340.
- [3] Daali M, Hssaida R, Zoubir M, Hda A, Hajji A. Peritoneal hydatidosis: a study of 25 cases in Morocco .Sante. 2000; 10(4):255-260.
- [4] EL Mansari O, Zentar A, Sair K, Sakit F, Bounaim A, Janati IM. Peritoneal hydatid cysts. A propos of 12 cases. Ann Chir. 2000; 125(4):353-357
- [5] Larbi N, Hedfi S, Selmi M, Ben Salah K. Acute intra peritoneal rupture of liver hydatid cysts .Ann Chir. 2002 Jun;127(6):487-488
- [6] Beyrouti MI, Beyrouti R, Abbes I, Kharrat M, Ben Amar M, Frikha F, and al . Acute rupture of hydatid cysts in the peritoneum: 17 cases. Presse Med. 2004 ; 27; 33(6):378-384
- [7] El Malki HO, El Mejdoubi Y, Mohsine R, Ifrine L, Belkouchi A. Intra peritoneal perforation of hepatic hydatid cyst .Gastroenterol Clin Biol. 2006;30(10):1214-1216
- [8] Gossios KJ, Kontoyiannis DS, Dascalogiannaki M, Gourtsoyiannis NC. Uncommon locations of hydatid disease: CT appearances. Eur Radiol. 1997; 7(8):1303-1308.
- [9] Kalovidouris A, Gouliamos A, Vlachos L, Papadopoulos A, Voros D, Pentea S, and al.MRI of abdominal hydatid disease. Abdom Imaging. 1994; 19(6):489-494.
- [10] Ahmed G, Nejmeddine A, Mohamed Issam B. Education and Imaging.Gastrointestinal: peritoneal hydatidosis. J Gastroenterol Hepatol. 2007 ; 22(8):1347
- [11] Ben Brahim M, Nouri A, Ksia A, El Ezzi O, Krichene I, Mekki M, Belghith M. Management of multiple echinococcosis in childhood with albendazole and surgery. J Pediatr Surg. 2008; 43(11):2024-2030.
- [12] Rosa M, Sahoo S. Primary hydatid cyst of the omentum. Diagn Cytopathol. 2009; 37(2):117-118.
- [13] Mosca F. Our experience in the surgical treatment of peritoneal hydatid disease. G Chir. 2004; 25(11-12):385-389
- [14] Karydakis P, Pierrakakis S, Economou N, Ninos A, Raitsiou B, Bobotis E, and al. Surgical treatment of ruptures of hydatid cysts of the liver. J Chir (Paris) .1994; 131 (8-9):363-370.
- [15] Nadeem N, Khan H, Fatimi S, Ahmad MN. Giant multiple intra-abdominal hydatid cysts. J Ayub Med Coll Abbottabad. 2006; 18(4):71-73.