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Pelvic Hydatidosis: About 3 Cases and Review of the Literature

N. Mekkaoui, H. Mochtari, M.K.Saoud, N. Mamouni, S. Errarhay, C. Bouchikhi, A.Banani

Corresponding author: Mekkaoui Nour-El Houda, **nourelhouda.mekkaoui@usmba.a**c.ma

Department of Gynecology and Obstetrics I, Hassan II university Hospital, Fez, Morocco

Abstract: *Hydatidosis is an anthropozoonosis caused by the development of the larval form of Echinococcus granulosus. It can develop in any organ; the lung and the liver are the most frequent localizations. Pelvic-genital hydatidosis is a rare and misleading form, which poses a real diagnostic problem even in endemic areas. We report 3 cases of pelvic hydatidosis collected in our department of gynecology-obstetrics I, over a period of 5 years. The gynecological and obstetrical future is at stake because of pelvic-genital localizations. This requires a precise diagnosis, an adapted treatment and a postoperative surveillance to detect possible recurrences.*

Keywords: pelvic hydatidosis, Ovarian hydatid cyst, pelvic ultrasound, cystectomy

Introduction:

Hydatidosis is still endemic in Morocco, where it represents a public health problem. It is secondary to the development in the body of the larval form of a taenia "echinococcus granulosis". Its hepatic and pulmonary localizations represent 80 to 90% of cases [1-2].Pelvic hydatidosis is observed in only 0.2 to 2% of cases [3-4].

There are two forms of hydatid cysts of the ovary: the secondary form is the most frequent and is due to the intra-abdominal rupture of a primary hepatic or splenic hydatid cyst. The primary form is exceptionally encountered [5].

We report 3 cases of pelvic hydatidosis collected in our department over a period of 5 years:

Patients and cases:

Case 1:

F.M, 70 years old, menopausal, with a history of a hydatid cyst of the liver operated 12 years ago, without any further follow-up. The reason for consultation was intermittent pelvic pain that had been evolving for 1 year. The gynecological examination found a sensitive right adnexal mass, with the presence of the separation with the uterus. Pelvic ultrasound showed a multiloculated latero-uterine image measuring 111 mm*69 mm, associated with a right pyelocalic dilatation of 27 mm. probably due to a mass effect on the uterus. Is it an invasive tumour or a mass compressing the ureter enclosed in the broad ligament?

The peritoneal, hepato-spleno-renal exploration was unremarkable. A right adnexectomy was performed. The operation was performed with all the necessary protective measures to avoid secondary dissemination. The anatomopathological study came back in favour of a remodeled ovarian hydatid cyst.

Figure 1: Hydatid cyst of the ovary on ultrasound:
Multilocular anechogenic image with posterior enhancement

Case 2:

M.F, 31 years old, single, without any notable pathological history, who consulted for an increase in abdominal volume associated with pelvic pain. The digital rectal examination combined with the abdominal palpation showed a mass reaching halfway to the umbilicus,

with a hard consistency and without any separation with the uterus. Pelvic ultrasound showed a multilocular right latero-uterine mass with septa measuring 94*80mm, detected by color Doppler. Pelvic MRI showed an aspect in favor of a right ovarian cystadenocarcinoma. At the surgical exploration, we found a mass measuring 20cm, corporal anterior to the uterus, of hard consistency without vegetations, adherent to the bladder. A complete removal of the mass after releasing the adhesions was performed. The postoperative histological result came back in favor of a remodeled hydatid cyst.

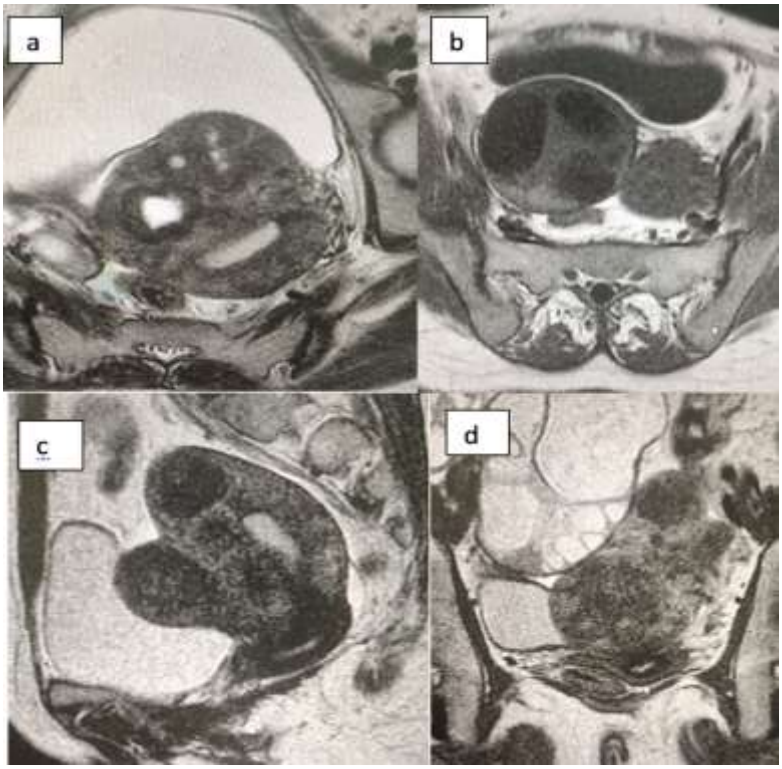

Figure 2: a-b-c-d: Ovarian hydatid cyst simulating a cystadenocarcinoma on MRI

Case 3:

B.H, 65 years old, hypertensive, menopausal, the reason for consultation was abdominopelvic pain evolving for 6 months. The gynecological examination was unremarkable. Pelvic ultrasound revealed a multilocular image measuring 67*61mm, with partitions, the thickest of which measured 52mm. An abdomino-pelvic CT scan showed a type III splenic hydatid cyst, with a 60*55mm intervesico-uterine cystic lesion containing a thick septum with some parietal calcifications. Surgical exploration revealed a cystic mass measuring 9*6cm adherent to the bladder wall. The two adnexa were attached to the mass. A total hysterectomy with bilateral adnexectomy was performed. the histological result came back in favor of a hydatid cyst of the ovary.

Discussion:

Pelvic hydatidosis is a rare localization. Its frequency is estimated at 0.2 to 2% [3-4]. Ovarian hydatid cysts represent the most frequent pelvic-genital involvement [6].

In our study, 2 cases had an ovarian localization, while one case had a uterine localization.

There are 2 forms of hydatidosis according to its etiopathogenesis. The secondary form is the most frequent and is due to the intra-abdominal rupture of a primary hepatic or splenic hydatid cyst. The primary form is rare. This form can only be considered if the patient has no other pulmonary, hepatic or splenic localization [5].

In our study, 2 patients had a secondary ovarian hydatid cyst, since they had a primary hepatic and splenic localization. While one patient had a primary pelvic hydatidosis, because of the search for a primary involvement that was negative.

The clinical symptomatology of ovarian hydatidosis is polymorphic. Therefore the diagnosis is rarely made preoperatively.

In endemic areas, the presence of a hyper-eosinophilia on the blood count, calcifications opposite the hepatic or splenic site on the unprepared abdomen help to orient the diagnosis

Ultrasound is the examination of choice for positive diagnosis [7,8], it allows the type of hydatid cyst to be determined, its location, size, impact on the upper urinary tract, and its relationship with the pelvic structures. It also allows to look for another location, in particular hepatic, renal or splenic [9].

The CT scan allows a better assessment of the topography of the cyst, its size, and its relationship with the neighbouring organs, as well as a more detailed analysis of the wall and the cystic contents, in particular in the case of a doubtful ultrasound appearance. In the case

of a type IV hydatid cyst, the CT scan makes it possible to distinguish the hydatid cyst from the tumor mass by the avascular character of the cystic mass as well as the detection of daughter vesicles with endo- and/or exocystic development [10].

The diagnosis of primary pelvic hydatidosis is difficult. It is based on a set of clinical, biological and radiological arguments. However, the clinical picture is often misleading, simulating a tumoral origin, imaging may be inconclusive and the biological work-up may be doubtful or negative. Most often, it is the puncture or open biopsy that allows the diagnosis to be made with certainty[1-7].

The treatment of pelvic hydatid cysts remains essentially surgical, thus avoiding the evolution towards mechanical and infectious complications.

The treatment of choice is cystectomy. it is necessary to avoid the rupture of the cyst to prevent possible contamination. The exploration of the rest of the abdominal cavity is necessary to look for other hydatid localizations, which will be treated during the same operation.

Exclusive medical treatment of pelvic hydatid cysts may be reserved for : [11,12]

- Patients with a temporary or definitive contraindication to surgery;
- Patients with simple type I and II hydatid cysts of reduced volume;
- Patients with multiple and/or disseminated hydatidosis;
- In case of recurrence, the frequency of which is estimated at 9%;
- When complete surgery is not possible;
- Preoperatively to soften the cyst, and thus reduce the intracystic pressure and simplify removal of the endocyst

The vital prognosis is good after treatment. The risk of postoperative complications is greater when the peri-cystectomy is complete; conversely, the risk of recurrence is greater when it is incomplete

The functional prognosis of fertility after treatment is not well studied because of the rarity of the disease. It is usually compromised either by mutilating surgery or by adhesions.

Conclusion:

Pelvic hydatidosis remains a rare or even exceptional localization. Its diagnosis is guided by the rural origin and the notion of hydatid contagion, associated with a pelvic compression syndrome, and confirmed by radiology for certain cases, and per-operatively for others. There is a high risk of recurrence of hydatidosis, hence the need for postoperative surveillance, which determines the vital and functional prognosis. Prevention thus remains the best treatment, especially in an endemic area.

Figures:

Figure 1: Hydatid cyst of the ovary on ultrasound: Multilocular anechogenic image with posterior enhancement

Figure 2: Ovarian hydatid cyst simulating a cystadenocarcinoma on MRI

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