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Research Article

PERITONEAL TUBERCULOSIS IN THREE CASES

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Abstract

Pelvic tuberculosis is a rare condition that poses diagnostic difficulties. We studied three cases of this entity that presented with different symptoms: long term fever, altered general condition and abdominal overdistention. The radiological work-up made us suspect an ovarian pathology. A laparotomy was performed for our three patients and samples were taken. The histological study pointed to peritoneal tuberculosis. Medical treatment for tuberculosis was given. The evolution was favourable in two cases and a death in the third case. Pelvic tuberculosis can simulate ovarian cancer, diagnostic difficulties are encountered. The histological study confirms the diagnosis.

Keywords: Tuberculosis, Ovary, Peritoneum.

INTRODUCTION

Tuberculosis is currently a public health problem in both developing and industrialised countries (Nistal de Paz, 1996). Tubal involvement is the most common, followed by cervical and endometrial location (Nistal de Paz, 1996). Pelvic location currently accounts for 6-10% (Nistal de Paz, 1996). Ovarian tuberculosis is less frequent, presenting with a clinical, radiological and biological picture that strongly suggests an ovarian tumour. Several factors have contributed to the recrudescence of this condition, including essentially the immunodepression caused by the acquired immunodeficiency syndrome (AIDS) (Panaskaltsis *et al.,* 2000). We propose through these three observations, the diagnostic difficulties and constraints imposed by this entity.

Observation 1

Patient A B, 33 years old, G4P4, was admitted with a long-standing fever that had been evolving for more than 4 weeks and a palpable abdominal mass in the hypogastrium. CA 125 was elevated. The chest X-ray was unremarkable, and the ultrasound described a left pelvic-abdominal ovarian cyst with a slight left uretro-hydronephrosis. The cardiac echo ruled out pericarditis. The thoracic-abdominal-pelvic scan suggested a very probable cystadenocarcinoma of the ovary. The histological study concluded to a granulomatous inflammatory reaction of tubercular type with purulent peritoneal fluid, all compatible with peritoneal tuberculosis. No signs of malignancy. The evolution was very favourable after medical treatment of tuberculosis with weight gain and disappearance of ascites two months later.

Observation 2

Patient M S aged 18 years G0P0 Hospitalized for alteration of the general state and weight loss at the ultrasound a pelvic image in favor of ovarian cyst, A laparotomy revealed a gelatinous fluid collection and the histological examination was in favour of tuberculosis.

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The evolution was marked by the death of the patient 1 5 days later despite the treatment of tuberculosis.

Observation 3

Patient S k, 50 years old, hospitalized for isolated ascites of great abundance. Ultrasound showed a heterogeneous image in favour of an ovarian cyst

The ca25 was elevated

A laparoscopy was performed with a biopsy and collection of ascites fluid.

The histological examination was in favour of tuberculosis. Specific treatment was started and the evolution was very favourable under specific medical treatment of tuberculosis with disappearance of the ascites and latero-uterine images

DISCUSSION

The tumour form of genital tuberculosis represents 15% of all pelvic tuberculosis localisations. It can occur at any age, with a predilection for young women aged 20 to 30 years (Panaskaltsis *et al.,* 2000). It is rare in elderly subjects in developing countries, whereas in developed countries, tuberculosis is rare and concerns elderly or debilitated subjects. This condition classically affects women of low economic status (Kim *et al.,* 2004; Namavar Jahromi *et al.,* 2001; Akka *et al.,* 2009). The pathogen is mainly Mycobacterium tuberculosis or Koch's bacillus secondarily Mycobacterium bovis. It is a slow-growing acid-fast bacillus (Akka *et al.,* 2009). The absence of vaccination is incriminated and constitutes a fundamental element with other factors (Nistal de Paz, 1996). The pelvic location of tuberculosis is polymorphic in symptomatology, not very specific, and can sometimes simulate ovarian cancer. Indeed, pelvic pain, abdominopelvic masses, ascites and weight loss can be the first clinical signs in both diseases. However, other clinical signs may be present, such as digestive signs, menstrual disorders such as dysmenorrhoea and amenorrhoea, and urinary signs which are inconstant another localization, in particular pulmonary or digestive, which must be sought (Bennani *et al.,* 1999).

Infertility can be a mode of revelation in 5 to 10%, an association with another location, particularly pulmonary and digestive, should be sought, but their absence is noted in 30 to 50% of cases. In our patients the work-up did not show any other location. Ultrasound and CT scans do not seem to be of specific help in differentiating between ovarian cancer and tuberculosis (El Mansouri and Moumen, 1993). Radiologically, the data from ultrasound, CT and MRI are not specific. Magnetic resonance imaging are not specific. Sometimes there may be an appearance of a bilateral hydrosalpinx with an enlarged ovary enlarged ovary associated with ascites. The lesion may infiltrate the surrounding fat or even invade it with fistulisation to the neighbouring organs, particularly the rectum

The clinical diagnostic error is reinforced by ultrasound and CT data pointing to a malignant ovarian tumour especially when they show bilateral ovarian masses associated with ascites and abdominal adenopathy (Miranda *et al.,* 1996). CA125 is a marker that is elevated in over 80% of ovarian cancers (Namavar Jahromi *et al.,* 2001). Nevertheless, its level can be elevated under normal conditions (pregnancy, menstruation), during chronic inflammatory conditions (endometriosis, pancreatitis, hepatitis, etc.) and in the postoperative period (Nistal de Paz, 1996; Miranda *et al.,* 1996). This level rarely exceeds 500 U/ml (Panaskaltsis *et al.,* 2000). In our case, the CA125 level was elevated for all patients above 210 U/ml. Simsek *et al.* (1997) have shown that the decrease and normalisation of serum CA125 levels correlate with good disease progression under antibacillary treatment, and have therefore proposed the measurement of CA125 in the monitoring of treatment effectiveness. Laparoscopy was performed in only one case, and could not be performed in the other two cases due to the importance of ascites and the strong suspicion of ovarian cancer. Laparoscopy with biopsy is of great of pelvic tuberculosis in more than 97% of cases (Volpi *et al.,* 2004) and thus makes it possible to avoid laparotomy (Akka *et al.,* 2009). However, laparotomy is performed in most cases reported in the literature when ovarian cancer is strongly suspected (El Mansouri and Moumen, 1993; Simsek *et al.,* 1997; Volpi *et al.,* 2004). Other alternatives to laparoscopy and laparotomy have been proposed, including transvaginal (Caspi *et al.,* 2000) or transabdominal ultrasound-guided biopsies (Branagan *et al.,* 1999). The histological study of the biopsies or the surgical specimen allows the diagnosis to be made by showing gigantocellular granulomas with caseous necrosis specific to Koch's bacillus. The bacteriological study of ascites fluid is rarely positive (Nebhani *et al.,* 2004). In our case, the fluid was not cultured in Loweinstein's medium. Other infectious agents can reproduce the same non-specific clinical picture of ovarian tuberculosis, including Streptococcus milleri (Adsuar *et al.,* 2004), actinomycins or other mycobacteria (Kim *et al.,* 2004). The treatment of pelvic tuberculosis is medical with antibacillary drugs according to the national programme of antibacillary control. The evolution was favourable after one week (patient was apyretic). The subsequent fertility of these young patients is compromised, pelvic tuberculosis being responsible for tubo-ovarian infertility in more than 39% of cases (Adsuar *et al.,* 2004).

Conclusion

Pelvic tuberculosis in its ovarian form is a location that can sometimes simulate ovarian cancer. Although the clinical presentation, ultrasound and CT scan data and elevated CA125 levels mislead the diagnosis to ovarian cancer, pelvic tuberculosis should always be considered whenever a young patient from a tuberculosis endemic country or with an immunosuppressed background is involved. Anatomical pathological study of the samples can confirm the diagnosis.

Conflicts of Interest: The authors declare no conflicts of interest.

Authors' Contributions: All authors contributed to the development and implementation of this work. The authors also declare that they have read and approved the final version of this manuscript.

REFERENCES

Adsuar N, Blanchette H, Hilchesky E. Tuberculosis peritonitis mimicking ovarien cancer in a 20-year-old woman a case report. *J Reprod Med.,* 2004;49:52–4. [PubMed] [Google Scholar]

Akka L, Khalil H, Cherif Idrissi Gannouni N, Jalal H, Samlani Z, Fadil K, Krati K, Essadki O, Oushel A. Tuberculose ovarienne pseudotumorale à propos de quatre cas. L'imagerie de la femme. 2009;19:251–254. [Google Scholar]

Bennani, S., H. Fekakm. Hafiani A. Debbagh A. Elmoussaouim. Elmrinis. benjelloun. Urogenital tuberculosis. A review of 109 cases .Médecine et Maladies Infectieuses, Volume 29, Issue 1, January 1999, Pages 19-25

Branagan G, Woolas RP, Senapati A, Cripps NP. Streptococcus milleri infection mimicking ovarian carcinoma. *Br J Obstet Gynaecol.,* 1999; *106* : 745-6

Caspi B, Wolach V, Von Der Walde J, Weiss Y, Appelman Z, Hagay Z. Diagnosis of abdominal tuberculosis by transabdominal ultrasound guided needle biopsy. *Ultrasound Obstet Gynecol.,* 2000; *16* : 569-70.

El Mansouri A, Moumen M. Les formes tumorales de la tuberculose génitale de la femme. *L'objectif médical Magazine* 1993 ; *69* : 899-903.

Kim SH, Yang DM, Kim KA. Unsual cancer of tubo-ovarian abscess: CT and MR imaging findings. Radiographics. 2004;24:1575–89. [PubMed] [Google Scholar]

Miranda P, Jacops AJ, Roseff L. Pelvic tuberculosis presenting as an asymptomatic pelvic mass with rising serum CA125. A case report. *J Reprod Med.,* 1996; *41* : 273-5.

Namavar Jahromi B, Parsanezhad ME, Ghane-Shirazi R. Female genital tuberculosis and infertility. Int J Gynaecol Obstet. 2001 Dec;75(3):269–72. [PubMed] [Google Scholar]

Nebhani M, Boumzgou K, Brams S, Laghzaoui M, EL Attar H, Bouhya S, Aderdour M-A, Iraqi M. Tuberculose pelvienne stimulant une tumeur ovarienne bilatérale. *J Gynecol Obstet Biol Reprod (Paris).,* 2004 Apr;33(2):145–7. [PubMed] [Google Scholar]

Nistal de Paz F, Herrero Fernandez B, Perez Simon R, Fernandez Perez E, Nistal de Paz C, Ortoll Battle P *et al* . Pelvic-peritoneal tuberculosis simulating ovarian carcinoma: report of three cases with elevation of the CA125. *Am J Gastroenterology* 1996; *91* : 1660-1.

Panaskaltsis TA, Moore DA, Haidopoulos DA, Mcindoe AG. Tuberculosis peritonitis: part of the diffential diagnosis in ovarian cancer: case report. *Am J Obstet Gynecol*., 2000; *182* : 740-2.

Simsek H, Savas C, Kadayifci A, Tatar G. Elevated serum CA125 concentration in patients with tuberculous peritonitis. A case contro study. *Am J Gastro Enter.,* 1997; *92* : 1174-6.

Volpi E, Calgaro M, Ferroro A, Vigano L. Genital and peritoneal tuberculosis: potential role of laparoscopy in diagnosis and management. *J Am Assoc Gynecol Laparosc,* 2004;11:269–72. [PubMed] [Google Scholar]

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