

Case Report

A Case of Demons-Meigs Syndrome Observed at the Markala Reference Health Center

Kanthé D^{1*}, Kéita S², Traoré M², Koné O¹, Samaké Y², Samaké B³, Fomba D¹, Malle K⁵, Bagayoko TB³, Diarra I⁶, Dembélé BT⁴

¹Markala Reference Health Center, Bamako, Mali

²Fana Reference Health Center, Bamako, Mali

³Ségou Regional Hospital of Nianankoro Fomba, Bamako, Mali

⁴University Hospital Center of Gabriel Touré and National Center for Scientific Research and Technology (CNRST), Bamako, Mali

⁵Segou Regional Health Directorate, Bamako, Mali

⁶Commune 1 Reference Health Center of Bamako, Mali

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Abstract: DEMONS-MEIGS syndrome is defined by a pathological triad associating ascites, hydrothorax (Both can sometimes be associated) and an ovarian tumor, most often solid and benign but possibly cystic. **Objective:** To describe a case of Demons-Meigs syndrome observed at the Health Center of Reference of Markala. **Clinical observation:** We report the medical file of a 64-year-old postmenopausal lady, G11P7V6A0D1, IIG=2 years old without surgical history but poorly monitored hypertension. She was conducted in our department on 08/25/2020 in a picture of paroxysmal abdominal-pelvic pain with gravity type associated with an alteration of the general condition. It is associated with a productive cough with dyspnea of effort and previous chest pains. After the physical examination, there was a voluminous rounded pelvic mass going from the epigastric region to the pubic hair, the ultrasound examination having objectified an ascites of medium abundance and a voluminous left pelvic mass of 191mm / 120 mm then the chest X-ray from the front showing a right basal pleural effusion, the diagnosis of Demons-Meigs syndrome was evoked. After a preoperative assessment and a pre-anesthetic consultation, an exploratory laparotomy was performed. At the celiotomy, a serohematic ascites of 1.5 l is discovered, a large ovoid and pediculated ovarian tumor of the left ovary, not bumpy, overhanging the uterus, not twisted and not adhered but easily mobilizable. **Conclusion:** The Demons-Meigs syndrome which essentially comprises a benign ovarian tumor, ascites and a recurrent pleural effusion, characterized by healing without sequelae with drying of the effusions (Ascites and pleurisy) after removal of the ovarian tumor still retains a rather obscure etiology and pathophysiology.

Keywords: Demons-Meigs syndrome, ovarian tumor, ascites, hydrothorax.

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INTRODUCTION

First described by Spiegel Berg in 1866, Demons in 1887 provided a pathophysiological explanation for the presence of hydrothorax, then Meigs in 1954, published 84 cases, DEMONS-MEIGS syndrome is defined by a pathological triad associating ascites, hydrothorax (Both can sometimes be associated) and an ovarian tumor, most often solid and benign but possibly cystic [1].

It is a rare anatomical and clinical entity that can be seen in 0.25% of ovarian tumors [2]; and which

affects women most often in the pre- and postmenopausal period, i.e. between 40 and 50 years [3]. DEMONS-MEIGS syndrome is also characterized by recovery without sequelae with drying of effusions (Ascites and pleurisy) after removal of the ovarian tumor is known [4].

CLINICAL OBSERVATION

Mrs MS, 64 years old, menopausal, G11P7V6A0D1, IIG = 2 years old without surgical history but hypertensive known and poorly monitored. She was conducted in our department on 08/25/2020 in

a picture of paroxysmal abdominal-pelvic pain with gravity type associated with an alteration of the general condition. It is associated with a productive cough with dyspnea from exertion and previous chest pain. On physical examination, we noted a calm but anxious patient with height and weight respectively 1m62 and 71kgs, BP= 11/07 mmHg, FC=81 pulses /min, moderately colored conjunctiva and polypneic at 31 cycles per minute.

On palpation, there was a voluminous rounded pelvic mass going from the epigastric region to the pubic hair, of firm consistency, with regular contours without modification of the skin facing and mobile

relative to the two planes. The ganglion areas were free. The ultrasound examination carried out the day after his admission had objectified an ascites of medium abundance and a voluminous left pelvic mass of 191 mm in transverse axis and 120 mm in antero-posterior axis, appearing to come from the left appendix, homogeneous well delimited overflowing the umbilical region and compressing the pelvic ureters.

The chest X-ray from the front showed a right basal pleural effusion. With regard to the clinical and paraclinical context, the diagnosis of Demons-Meigs syndrome was mentioned.



Figure 1: Patient in supine position

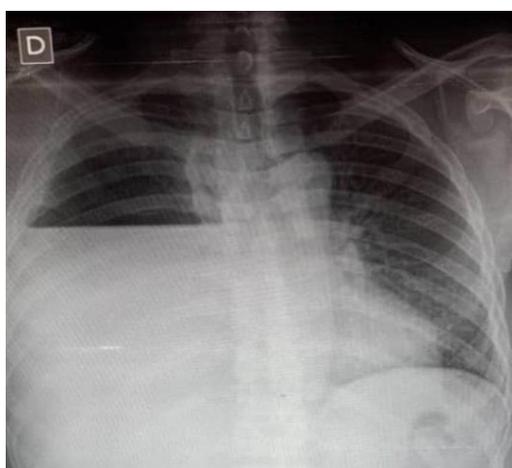


Figure 2: Front chest X-ray

Thus, a preoperative assessment was initiated and a pre-anesthetic consultation for an exploratory laparotomy.

Procedure of the intervention

Patient installed in the supine position, under general anesthesia with Ketamine and orotracheal intubation, we performed a xyphopubic laparotomy.

At the celiotomy, aspiration of an ascites formed by a serohematic liquid of about 1.5 liters, a large ovoid ovarian tumor and pediculated at the expense of the left ovary measuring 42 cm of major axis and 25 cm of minor axis, not bumpy, smooth surface, firm consistency, pearly white appearance, overhanging the uterus, not twisted but easily mobilizable without any adhesion.



Figure 3: Externalization of the tumor by laparotomy

Actions performed

We proceeded to the aspiration of the ascites, the total removal of the large tumor (21kg) by cutting the pedicle flush with the left ovarian site, perform hemostasis before cleaning the peritoneal cavity and then close the abdominal wall plane by plane. The ovarian tumor was sent to a histopathology laboratory. The anatomopathological examination of the operating room was in favor of a mucinous cystadenoma of the ovary. The post-operative consequences were simple. There was a very remarkable clinical recovery with disappearance of signs and drying of effusions (Pleural and peritoneal).



Figure 4: Operating specimen



Figure 5: Closing of the surgical wound

DISCUSSION

Demons-Meigs syndrome is a rare anatomical and clinical entity due to its low frequency and its obscure pathophysiology which associates a benign ovarian tumor, ascites and hydrothorax which is seen in 0.25% of ovarian tumors; and which affects women most often in the pre- and postmenopausal period, i.e. between 40 and 50 years [3]. Our literature review allowed us to have a beginning of explanation at the origin of the effusions associated with this syndrome. The passage of the peritoneal fluid to the pleural cavity would take transdiaphragmatic lymphatic pathways; this network is more developed on the right than on the left because of the hepatic mass, hence the right predominance of the pleural effusion. Ascites would come from the release of the liquid by tumor edema following compression or torsion of the fibroid on its axis [7]. In the description of this clinical case, the hydrothorax was also found on the right.

The importance of ascites in our patient was observed in almost 65% of cases [8,1], the volume of the tumor, its weight and its benign character [4] as well as its spectacular evolution towards the "drying up" of the hydrothorax and the rapid improvement in the general condition of the patient after the removal of the tumor, are important parameters in the diagnosis of this pathology [5]. The only criterion for Demons-Meigs syndrome remains the quality of the prognosis; namely its benignity and the definitive recovery of the patient after intervention [4,6].

CONCLUSION

In total, our patient, who is a 64-year-old postmenopausal woman, had all the characteristics of a Demons-Meigs syndrome. This syndrome, which essentially comprises a benign ovarian tumor, ascites and a recurrent pleural effusion, still retains a rather obscure etiology and pathophysiology.

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