Massive Hematometra With Bilateral Hematosalpinx

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A 15-year-old Angolan female, with a history of four prior surgeries for a transverse vaginal septum but otherwise healthy and with no significant complaints in recent years, presented to the emergency department with an isolated severe abdominal pain starting six hours before. From the patient assessment, we highlight:

- Amenorrhea for 23 months, since the last surgery;
- Diffusely painful abdomen, with a large and apparently mobile abdominopelvic mass;
- Vaginal examination with a short progression of the speculum (about 3 cm), ending in a complete, transverse and hard consistency obstruction;
- Iron deficiency anemia (hemoglobin 5.9 g/dL, hematocrit 23.3%, iron 15 µg/mL and ferritin 9 ng/mL).

No other relevant abnormalities were found.

The patient underwent magnetic resonance imaging, which identified a large distension of the uterine cavity, with hourglass appearance, measuring 28 x 15 x 10 cm (longitudinal, transverse and anteroposterior axes, respectively). The uterus was dilated by a hyperintense content in T1- and T2-weighted sequences, with no signal changes after fat suppression and no diffusion restriction. There was also similar content inside both Fallopian tubes, which were dilated and tortuous, and intraperitoneal free fluid. These aspects reflect hematic content, being compatible with a massive hematometra associated with bilateral hematosalpinx, both probably conditioned by an obstruction near the vaginal fundus, due to fibrotic tissue consequent to previous interventions[1-2]. The patient was referred to a surgical center for urogenital congenital malformations.

Keywords: Abdomen, Acute; Adolescent; Fallopian Tube Diseases/diagnostic imaging; Hematometra/diagnostic imaging; Magnetic Resonance Imaging

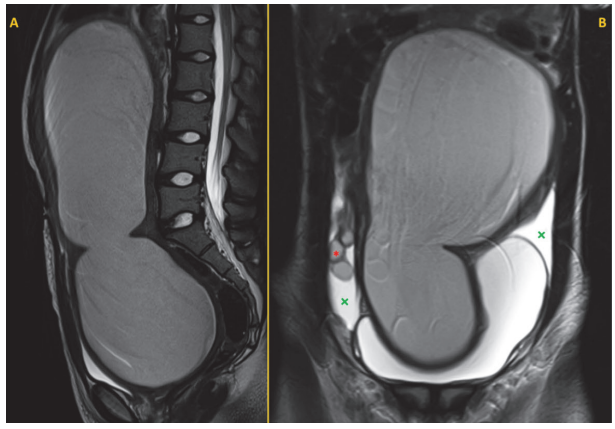

Figure 1. Sagittal (A) and coronal (B) T2-weighted magnetic resonance images showing the extremely large and dilated uterus filled with a hyperintense content as well as the right dilated Fallopian tube (red asterisk) and intraperitoneal free fluid (green crosses), compatible with a massive hematometra associated with hematosalpinx.

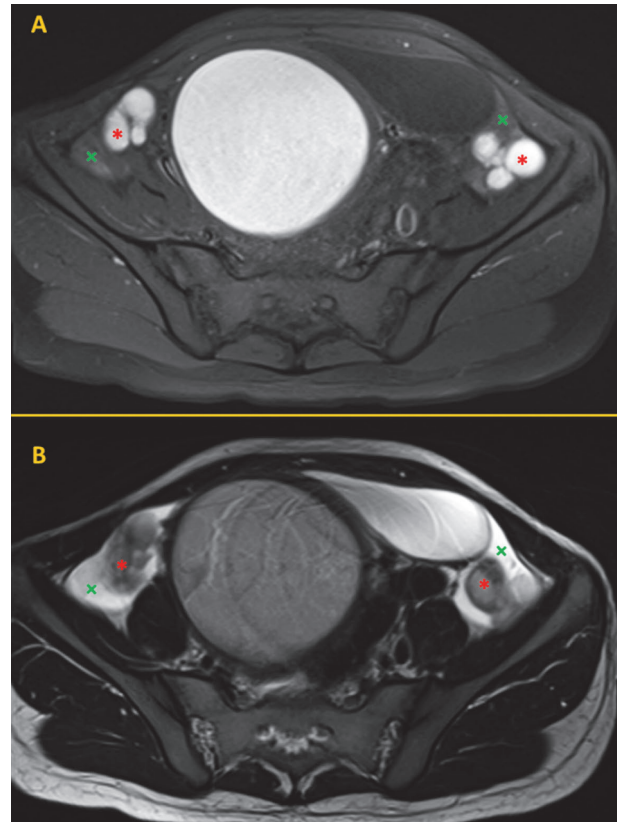

Figure 2. Axial T1-weighted (A) and T2-weighted (B) magnetic resonance images showing the extremely large and dilated uterus filled with a hyperintense content as well as the dilated Fallopian tubes (red asterisks) and intraperitoneal free fluid (green crosses), compatible with a massive hematometra associated with bilateral hematosalpinx.

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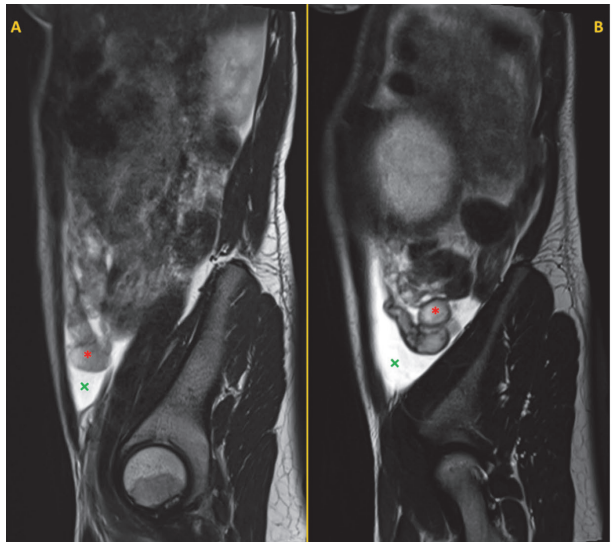

Figure 3. Sagittal T2-weighted magnetic resonance images showing the right (A) and left (B) Fallopian tubes (red asterisks), dilated and filled with a hyperintense content as well as intraperitoneal free fluid (green crosses) compatible with bilateral hematosalpinx.

WHAT THIS REPORT ADDS

- In a female adolescent, the detection of a pelvic mass imposes a differential diagnosis between a pregnancy uterus, benign pathology, including congenital genital malformations that may only become apparent after menarche, and malignant pathology.
- For a correct diagnosis, a complete physical examination and a thorough anamnesis are essential. The investigation of the surgical background of the patient is extremely important, as this case illustrates.
- When faced with an imaging exam revealing that the uterine cavity is dilated and filled with content, three main hypotheses must be considered: fluid, blood and pus.
- Magnetic resonance imaging is the most suitable imaging modality for the evaluation of pelvic pathology. Hyperintense content in both T1 and T2 weighted sequences is compatible with blood.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

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Consent for publication

Consent for publication was obtained.

Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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