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Dysmenorrhea Revealing a Pseudo-Horned Uterus at Ouakam Military Hospital in Senegal

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Abstract

The pseudo-unicornous uterus also called uterus bicornous unicervical with unequal horns is a rare uterine malformation with a frequency estimated between 2.4 and 13% of uterine malformations. It is often asymptomatic but the form with functional rudimentary horn, which does not communicate with the uterine cavity, is quite symptomatic and cause primary dysmenorrhea. The diagnosis is made by 3D ultrasound or magnetic resonance imaging (MRI) and the treatment is surgical.

Key words:

Pseudo-unicornous uterus; Dysmenorrhea; Magnetic resonance imaging; Laparoscopy

Introduction

The pseudo-unicornous uterus also called uterus bicornous unicervical with unequal horns is a rare uterine malformation. It is characterized by the existence of a rudimentary horn which can be functional or not, communicating or not with the uterine cavity. This abnormality is due to a melting failure of the Müllerian ducts leading to an incomplete unilateral aplasia.

Its frequency, still poorly known, is estimated between 2.4 and 13% of uterine malformations [1]. Usually asymptomatic, the pseudo-unicornous uterus can be revealed by pelvic pain, dysmenorrhea or dyspareunia [2]. The non-communicating and functional form, IIb class of the American Society of Reproductive Medicine (ASRM), is the most common and most symptomatic [1]. The diagnosis is made by 3D ultrasound or magnetic resonance imaging and the treatment is surgical [1,3]. Through this case diagnosed and managed at Ouakam Military Hospital in Senegal, we remember the epidemiological, diagnostic and therapeutic aspects of the pseudo-unicornous uterus.

Observation

Mrs. F., 27 years old, 0 gravida, married since 14 months, consult for cyclic pelvic pain. She reported episodes of intractable dysmenorrhea. Her cycle was regular with menses during 4-5 days. The clinical examination was normal. The 2D ultrasound and the hysterosalpingographia has revealed a uterus unicervical with 2 horns (Figure 1).



Figure 1 Pseudo-unicornous uterus with rudimentary and functional horn (MRI), arrow resembling rudimentary horn

MRI confirmed the pseudo-unicornous unicervical uterus without communication or renal ectopy or malformation associated (Figure 2).

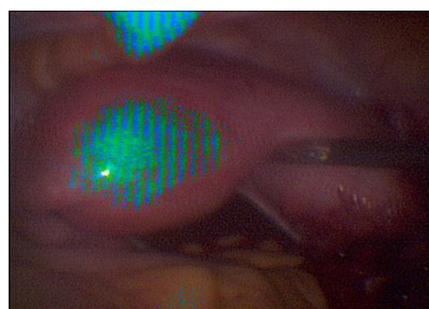


Figure 2 Laparoscopic view of a right rudimentary horn, arrow resembling right rudimentary horn

Laparoscopy revealed a right rudimentary horn about 6 cm of length with a rudimentary ipsilateral uterine tube and endometriosis nodules on the right ovary. This malformation was classified as IIb of the ASRM.

A right salpingectomy and an excision of the rudimentary horn were performed by laparoscopy. There were no post-operative complications and the patient left the hospital 48 h after the surgery. The pathological examination of the surgical specimen revealed an adenomyosis.

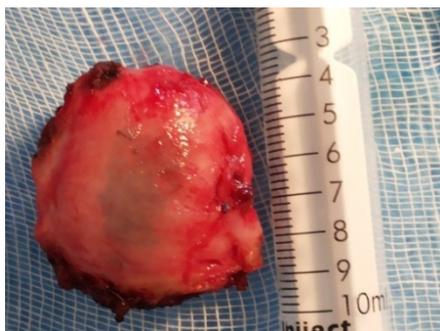


Figure 3 Surgical specimen (right rudimentary horn)

The patient had her period three weeks after surgery without dysmenorrhea. Two months later we have done a second look laparoscopy and there were some adhesions that were cut and the left tube was normal (**Figure 4**).



Figure 4 Second look laparoscopic view, arrow showing hemi-uterus with normal tube

Discussion

The pseudo-unicornous uterus with a rudimentary horn is a rare malformation. The rudimentary horn does not communicate with the uterine cavity in 83% of cases [4]. It is reported in the literature that this rudimentary horn is usually situated on the right side with a frequency varying between 62 and 80% according to the authors [5]. For our patient, we have done the same observation. That was a pseudo-unicornous uterus with a right rudimentary horn. Zapardiel and colleagues as well as Borah and colleagues also have reported that observation [4,6].

The rudimentary horn can be contained with an endometrial mucosa, giving it a functional character. It is often asymptomatic, discovered incidentally or during an obstetric complication [4]. However, the form with functional rudimentary horn, which does not communicate with the uterine cavity, is quite symptomatic because of the retention of menses. It causes dysmenorrhea, endometriosis by retrograde menstruation and chronic pelvic pain. This abnormality is associated with endometriosis in more than 40% [7].

In our patient, the dysmenorrhea revealed the uterine malformation, as in the work of Agarwal and colleagues, Borah and colleagues and Akdemir and colleagues [1,4,7].

Nowadays, MRI and 3D ultrasound are the best diagnostic tools used for the pseudo-unicornous uterus. Zapardiel and colleagues had used the two techniques to diagnose their cases of pseudo-unicornous uterus [6]. In the opposite, in the observation of Agarwal and colleagues the diagnosis was confirmed by MRI [7]. For our patient, we also performed an MRI because 3D ultrasound was not available in our hospital at that time. This exam is now preferred to MRI if the practitioner is experienced and efficient. Kim and colleagues had shown the superiority of 3D ultrasound comparing to MRI in the diagnosis of pseudo-unicornous uterus with rudimentary horn [3].

These two exams confirm the diagnosis of pseudo-unicornous uterus and specify if there is or not an association with urinary malformations. The ipsilateral renal agenesis is the most common. It was reported by Agarwal and colleagues and Borah and colleagues in their observations [4,7]. MRI performed in our patient hadn't revealed renal malformation or ectopy.

Laparoscopy performed for the treatment confirmed the diagnosis and revealed endometriosis nodules at the ipsilateral ovary and a rudimentary uterine tube. The course of this situation could be an endometrioma as shown by the work of Agarwal and colleagues and Borah and colleagues [4,7]. An endometriosis cyst on the ipsilateral ovary complicating a pseudo-unicornous uterus with functional non-communicating rudimentary horn was reported in their observations.

Laparoscopic resection has the advantage of reducing the hospital stay period and being more esthetic.

Conclusion

Primary dysmenorrhea is a frequent reason for consultation. It must impose a further investigation like 3D ultrasound and MRI in search of an organic cause. Early diagnosis and radical treatment by laparoscopic resection of functional non-communicating rudimentary horn prevent some serious complications like endometriosis.

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