



## HEMATOCOLPOS ON HYMENAL IMPERFORATION: ABOUT A CASE

Elmoudane Jihane\*, Halim Hajare, Etber Amina, Lakhdar Amina and Baydada Aziz

Department of Gynecology and Obstetrics, Ibn Sina University Hospital Center, Rabat, Morocco.



\*Corresponding Author: Elmoudane Jihane

Department of Gynecology and Obstetrics, Ibn Sina University Hospital Center, Rabat, Morocco.

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### ABSTRACT

Hymen imperforation is a relatively rare congenital malformation; Hematocolpos, which refers to the progressive accumulation of menstrual blood in the vaginal cavity, it is most common manifestation in adolescence. Clinically, it is manifested by cyclical pelvic pain and primary amenorrhea. More rarely, it can be revealed by a pelvic mass. Diagnosis is easy and, above all, clinical and must be made early in order to preserve the patient's subsequent fertility. Ultrasound and nuclear magnetic resonance are the complementary examinations of choice to detect possible associated genitourinary malformations. Treatment consists of a hymenotomy.

**KEYWORDS:** Hymen, Hematocolpos, Genito Urinary Malformations.

### 1- INTRODUCTION

L'imperforation hyménéale est une affection relativement rare, mais la plus fréquente des malformations congénitales du tractus génital féminins<sup>[1]</sup>, Sa fréquence est de 1 pour 2000 naissances féminines<sup>[4]</sup> Elle est souvent isolée, La cryptoménorrhée douloureuse par imperforation hyménéale parapubertaire est le tableau révélateur le plus classique.<sup>[3]</sup> Cela provoque une obstruction de l'orifice vulvaire responsable d'une rétention vaginale de sang menstruel et se manifeste par des douleurs pelviennes plus ou moins cycliques. Le diagnostic et la prise en charge de cette malformation doit être précoce afin de limiter l'impact de la rétention menstruelle et pour préserver l'avenir de la fécondité de ces jeunes filles. We report a case of hematocolpos secondary to hymenal imperforation. This diagnosis is most often overlooked in early childhood.

### 2- OBSERVATION

This is a 16-year-old girl with no particular history, who consulted the gynecological emergency room for pelvic pain which had been worsening for several days. The history revealed primary amenorrhea, cyclical abdominal pain lasting for 8 months. and recent worsening without urinary disorders or associated digestive signs, the clinical examination finds a patient stable on the hemodynamic and respiratory levels, the secondary sexual characteristics are present (Tanner stage 4).

Inspection of the vulvar region allowed the diagnosis of hymenal imperforate by showing a bulging bluish imperforate hymen (Figure 1).

Le toucher rectal associé à un examen abdominal trouve une masse pelvienne-abdominale molle et sensible mesurant 10 cm.

L'échographie sus-pubienne a montré un utérus de structure homogène et de taille normale mesurant 60 mm × 47 mm × 23 mm, avec une ligne de vacuité visible contenant une lame d'hématométrie. Dans la région vaginale, une image oblongue volumineuse à contenu épais mesurant 122 mm × 78 mm × 77 mm a été noté, suggérant un hématocolpos (**Figure 2**).

Thus, drainage by hymenotomy under general anesthesia is performed and approximately 1 liter of hematic fluid is collected; postoperative follow-up was simple. Magnetic resonance imaging is performed remotely to exclude possible genitourinary pathologies and/or anorectal malformations as well as other complications such as pelvic endometriosis.



**Figure 1: Bulging and imperforate hymen.**



**Figure 2: Image Showing A Large Retrovesical Collection Suggesting Hematocolpos.**

### 3- DISCUSSION

The hymen is a remnant of the mesodermal layer that normally perforates during the final stages of embryonic development.<sup>[4]</sup> Hymeneal imperforation is a rare incident estimated at 1 in 2000 female births.<sup>[5,6]</sup> The incidence reported in the literature varies widely, depending on whether we assess it globally, according to age or according to the type of anatomical lesion.<sup>[6]</sup> In typical cases, the age of discovery of hematocolpos is between 12 and 15 years (the age of menarche).<sup>[7,8]</sup>

The majority of cases reported in the literature are sporadic, however, a few familial cases have been described, suggesting a probable genetic predisposition.<sup>[5,9]</sup>

The diagnosis of hymeneal imperforate is possible in utero due to the observation of hydrometrocolpos on ultrasound.<sup>[10,11]</sup> In utero diagnosis also has the advantage of looking for associated renal malformations. This diagnosis can be made by systematic screening at birth but also by hydrometrocolpos during the genital crisis of the female newborn.<sup>[12]</sup> Most often, this malformation is discovered at puberty. The diagnosis should be suspected

in a young girl presenting with primary amenorrhea with normally developed secondary sexual characteristics.

Patients generally consult for recurrent pelvic pain secondary to accumulation of blood in the vagina or hematocolpos.<sup>[13]</sup> The cyclical nature of painful attacks may be lacking given the usual irregularity of the menstrual cycle during the peripubertal period.<sup>[14]</sup> The pain can be misleading, pseudoappendicular and induce 'excessive' interventions for suspected acute appendicitis.<sup>[15]</sup> Hematocolpos can compress the urethra and cause dysuria, complete bladder retention or even bilateral uretero-hydronephrosis.<sup>[13,16,17,18,19,20]</sup>

Einsenberg<sup>[21]</sup> reported, through a series of 44 observations of hematocolpos, 7 cases of bladder retention. Constipation is due to the same compressive mechanism.<sup>[21]</sup>

Pelvic ultrasound and magnetic resonance imaging, due to their safety in adolescents, are not only useful for confirming the diagnosis, but also for detecting possible malformations or associated complications.<sup>[4]</sup>

Laparoscopy makes it possible to establish a precise lesion assessment of the upstream impact and to treat possible endometriosis as well as periadnexal adhesions secondary to chronic inflammation.<sup>[10]</sup> It is especially indicated in cases of significant hematocolpos causing fear of upstream repercussions.<sup>[10,11,12,21]</sup>

The treatment of hymenal imperforation is primarily surgical. It consists of a hymenotomy. Its purpose is to drain the hematocolpos and to restore vaginal flow. Several incisions have been described: vertical, T-shaped, crossed, radial and circumferential incisions.<sup>[5]</sup> Circumferential incisions should be avoided because they lead to stenosis of the orifices, a source of dyspareunia. Hymenotomy must meet two requirements: respect the orifices of the Bartholin gland and promote urethro-hymenal dissociation. Antibiotic therapy is prescribed during the operation to avoid any infectious complications.<sup>[1]</sup> A post-menstrual consultation is considered to ensure the absence of stenosis and confirm hymenal healing.<sup>[6]</sup>

### 4 CONCLUSION

Hymenal imperforation is a rare malformation. Its diagnosis and treatment require early detection in order to preserve the subsequent fertility of these young girls. This diagnosis should ideally be made at birth through careful examination of the external genitalia of all female newborns. Most often, the diagnosis is made in an adolescent presenting with primary amenorrhea and normal secondary sexual characteristics associated with cyclical abdominal pain. Its treatment is essentially surgical. New techniques have made it possible to ensure normal menstrual flow while respecting virginity.

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