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Case Report

Partial imperforate hymen mimicking urethrovaginal fistula: a diagnostic pitfall

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ABSTRACT

Partial imperforate hymen, a rare congenital anomaly, often evades diagnosis until adulthood, presenting atypically as infertility, menouria, or dyspareunia. Misdiagnosis risks unnecessary investigations and delays in fertility care. This case report emphasizes the importance of recognizing atypical presentation of partial imperforate hymen, which may mimic as urethrovaginal fistula and to demonstrate how thorough clinical evaluation and vaginoscopy can lead to accurate diagnosis and successful management. A woman in her thirties presented with infertility, menouria, and dyspareunia. Initial assessment suggested urethrovaginal fistula, but magnetic resonance imaging (MRI) excluded fistulous communication. Detailed gynaecological examination combined with vaginoscopy led to the identification of a normal vaginal pouch, behind the lower fused hymenal membrane consistent with the diagnosis of a partial imperforate hymen, which was managed surgically. The patient recovered well and resumed normal sexual activity, with improvement in symptoms and plans for natural conception. This case highlights the importance of careful genital examination and office vaginoscopy in women presenting with menouria, to avoid misdiagnosis of genitourinary fistula and unnecessary investigations.

Keywords: Hymen, Vaginoscopy, Urethrovaginal fistula

INTRODUCTION

Partial imperforate hymen results from incomplete canalization of the vaginal plate, causing partial obstruction of the vaginal opening. Its incidence is unknown, as most cases are reported incidentally. Presenting symptoms may vary like prolonged, irregular, or painful menstruation, pelvic pain, difficulty in inserting tampons, dyspareunia or subfertility.[1]

Rarely, atypical symptoms such as menouria may lead to confusion with genitourinary fistulas due to anatomical proximity and overlapping clinical features. Misinterpretation of menouria often prompts extensive urological evaluation and imaging, which may delay definitive diagnosis. We report this atypical case of partial imperforate hymen presenting with menouria and subfertility that was initially misdiagnosed as urethrovaginal fistula.

CASE REPORT

A lady in her thirties presented with complaint of inability to conceive for past one year. She also gave history of menouria and difficulty in sexual intercourse. She had attained menarche at 13 years of age, and menstrual cycles were regular with no dysmenorrhea, but had noticed blood mixed urine at the time of her menses. She had visited a gynaecologist for these symptoms where she was suspected to have urethrovaginal fistula and was referred to urologist. Magnetic resonance imaging (MRI) abdomen and pelvis was done to evaluate the lower genital tract and assess for any abnormal communication; however, no genital or renal tract abnormalities were detected.

She presented to our out-patient department primarily for infertility after having tried for pregnancy for 1 year. On further careful probing, she gave history of normal menstrual flow and soakage of pads along with blood

mixed urinary flow at the time of menstruation, which seemed more like mixing at introitus and not true urinary bleeding. There was no history of abnormal urinary stream, post void dribbling of urine, continuous urinary leakage or any stress incontinence.

On examination, the secondary sexual characteristics were well developed. The abdominal examination was normal; with no palpable mass. On local examination, a single opening could be visualized. However, on further stretching the labia, a small 0.5 cm opening could be seen below the external urethral meatus, through which a thin probe was gently inserted. This probe could be smoothly negotiated below the external urethral meatus which confirmed the presence of a potential space or pouch in the vagina (Figure 1). On per rectal examination, uterus was normal size. Clinical diagnosis of partial imperforate hymen was made and patient was planned for vaginoscopy and hymenoplasty.

Figure 1: Probe pointing towards blind vaginal pouch.

Vaginoscopy was done as an office procedure under local anaesthesia. Urinary bladder was catheterized with 16 French foleys catheter for avoiding inadvertent injury during the procedure. Vaginoscopy was done using 0degree compact office hysteroscope 2.9 mm (Karl Storz, Germany) through the small opening below the external urethral meatus using normal saline. It revealed normal vagina and cervix behind the incompletely fused hymenal membrane. After confirming the diagnosis of partial imperforate hymen, local anaesthesia was infiltrated around hymenal tissue in the midline and incision was given using monopolar cautery till posterior fourchette (Figure 2).

The normal vaginal opening along with cervix was well appreciated now. The margins of the hymen were everted and sutured using delayed absorbable polyglactin 1-0 at 12,3, 6 and 9 o clock position (Figure 3). Patient stood the procedure well; catheter was removed immediately after the procedure and she was discharged the same day with SOS analgesics and advised to use a local lubricant and attempt natural conception. She currently has painless intercourse and normal menstrual flow.

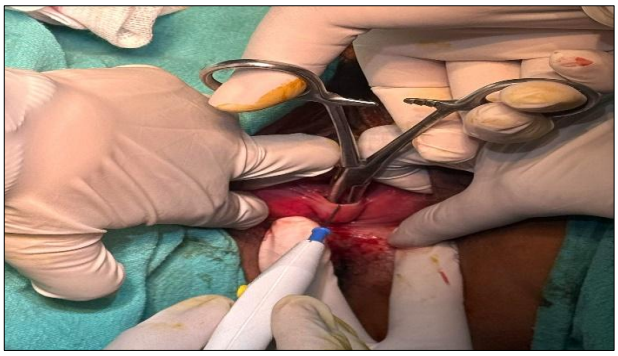

Figure 2: Incision given on midline hymenal tissue.

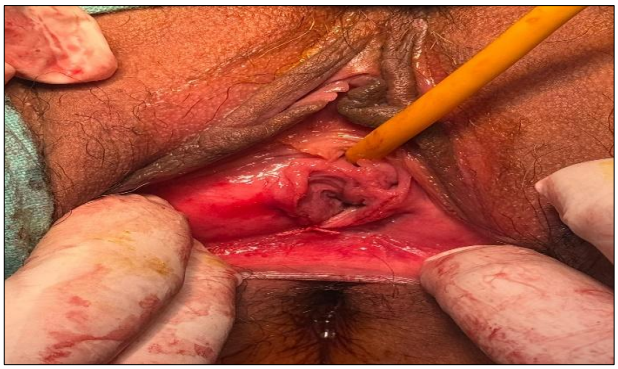

Figure 3: Final picture after correction- normal vaginal opening can be appreciated.

DISCUSSION

Congenital hymenal variants result from incomplete canalization of the distal vaginal plate.[1] Some common hymenal abnormalities include imperforate hymen, microperforate or partial imperforate hymen, cribriform hymen, and septate hymen. The incidence of imperforate hymen is around 0.05% to 1%, making it the most commonly reported obstructive congenital anomaly of the female genital tract.[2] In contrast, the prevalence of other hymenal variants is largely unknown, as they are often reported only in isolated case studies, often leading to delayed recognition and treatment.[3,4]

The presentation is variable, depending on the patient's age, severity of obstruction, and clinical course. The most common is imperforate hymen which typically presents around puberty with primary amenorrhea, cyclic pelvic pain, and a bulging vaginal mass, hematocolpos. In microperforate hymen, a small hymen opening allows limited menstrual flow, often going unnoticed until adolescence, causing issues like incomplete discharge, difficulty inserting tampons, painful intercourse, or subfertility. Kanika et al reported such a case in 16-year-old girl with foul-smelling menstrual discharge due to a microperforate hymen presenting as pyocolpos, which was surgically managed.[4]

Accurate diagnosis of hymenal anomalies relies mainly on a detailed history and physical examination. Our case mimicked a urethrovaginal fistula due to the atypical site of microperforation near the urethral meatus and menouria. However, the absence of continuous leakage and a normal MRI pelvis favoured a benign obstructive anomaly. Detailed history-taking and genital examination was key to correct diagnosis in our case, avoiding unnecessary imaging or surgical delay. Vaginoscopy is a simple office procedure for the diagnosis in such cases followed by treatment in the same sitting, thus avoiding the need of other advanced imaging modalities. Vatsa et al reported a similar diagnostic challenge where a patient presenting with menouria and double openings was presumed to have urethrovaginal fistula; however, vaginoscopy revealed labial adhesions.[5] Such cases emphasize the utility of simple outpatient endoscopic evaluation.

Timely diagnosis and early intervention of these hymenal abnormalities improves quality of life and prevents potential complications and sequelae, such as recurrent genitourinary infections, sepsis, hematometra, pyocolpos, endometriosis and long-term psychological and sexual health problems.6 We are reporting this case so that clinicians including gynaecologists and urologists can be made aware of varied presentations of obstructive hymenal abnormalities and to avoid unnecessary advanced imaging in such cases. Women presenting with menouria without continuous urinary leakage should undergo careful vulvar inspection before labelling as genitourinary fistula. Vaginoscopy is a simple, outpatient, low-cost diagnostic tool that can prevent unnecessary imaging and surgical referral.

CONCLUSION

Hymen abnormalities may present with a complicated diagnosis but thorough gynaecological examination combined with vaginoscopy is sufficient for diagnosis as well as successful management. Surgical correction of partial imperforate hymen is simple, can be performed under local anaesthesia, and typically results in resolution of symptoms and restoration of normal sexual function with potential for conception.

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REFERENCES

1. American College of Obstetricians and Gynaecologists. Diagnosis and management of hymenal variants. Obstet Gynecol. 2019;133(6):e372-6.
2. Lee KH, Hong JS, Jung HJ, Lee YS. Imperforate hymen: a comprehensive systematic review. J Clin Med. 2019;8(1):56.
3. Narula A, Kaur A, Kaur SP, Gupta A, Gupta S, Kaur P, et al. Imperforate & Microperforate Hymen: A Case Series of Diagnosis and Management of Three Adolescents. Int J Pediatr and Reprod Health Care. 2024;16(2):33.
4. Yadav R, Chopra K. Microperforate hymen with pyocolpos in a 16-year-old girl: A rare case report. Int J Clin Case Rep Rev. 2020;4(4):64.
5. Vatsa R, Saini A, Aggarwal A, Dhiman S. Persistent labial adhesions in a reproductive-age patient masquerading as urethrovaginal fistula, BMJ Case Rep. 2025;18:e262166.
6. Rock JA, Jones HW. Te Linde's Operative Gynaecology. 11th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins. 2015.

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