Sleeve Hymen as a Penetrate Problem in a Newly Married Woman: A Rare Case Report

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Abstract
Introduction: Imperforate hymen (IH), an uncommon congenital anomaly, is a failure to completely canalize the hymen. This report aims to describe a sleeve hymen in a newly married woman and the surgical approach to the patient.
Case Illustration: A 24-year-old newly married woman came to the gynecology polyclinic complaining of difficulty in sexual intercourse in the last 6 months. She felt painful and hard penile penetration since the first time of sexual intercourse. Inspection of external genitalia showed there was a hymen covering all vaginal introitus without an erythematous surface. The diagnosis indicated that the patient had a sleeve hymen. The patient underwent a U-shaped incision far away from the urethra as a hymenectomy.
Discussion: Most of the IH patients are asymptomatic until menarche. Excess of estrogen status can cause the thickening of the hymen, called the sleeve hymen or "redundant" hymen. Meanwhile, epithelial cells' failure in the center of the hymen to degenerate or excess cell proliferation may cause a microperforate hymen. There are several choices of treatment for IH, including hymenectomy (cruciate incision or hymen excision), hymen-preserving surgeries (simple vertical incision and annular hymenotomy), carbon dioxide laser, or insertion of a Foley catheter.
Conclusion: Good anamnesis and physical examination can lead to the correct diagnosis of sleeve hymen. Hymenectomy is one of the alternative treatments for married women who have less concern about hymen-preserving surgery.

Keywords: hymenectomy, microperforate hymen, prominent hymen, sleeve hymen

Penebalan Himen sebagai Gangguan Penetrasi pada Wanita Baru Menikah: Sebuah Laporan Kasus

Abstrak
Pendahuluan: Himen imperforata (HI) merupakan kelainan kongenital yang tidak lazim didefinisikan sebagai kegagalan dalam kanalisasi himen. Laporan ini bertujuan untuk menggambarkan penebalan himen pada wanita yang baru menikah dan pendekatan pembedahan kepada pasien.
Ilustrasi Kasus: Seorang wanita baru menikah berusia 24 tahun datang ke poliklinik ginekologi mengeluh gangguan hubungan seksual sejak 6 bulan lalu. Dia merasa sulit untuk penetrasi dan nyeri sejak pertama kali berhubungan seksual. Inspeksi pada genitalia eksterna memperlihatkan terdapat himen yang menutupi seluruh introitus vagina tanpa permukaan eritema. Diagnosis pada pasien ialah penebalan himen. Wanita tersebut dilakukan insisi bentuk U menjauhi uretra sebagai himenektomi.
Diskusi: Kebanyakan pasien HI asimptomatik sampai menars. Kelebihan estrogen dapat menyebabkan penebalan himen yang dikenal sebagai himen "tidak berguna". Sementara itu, kegagalan sel epitel di tengah himen untuk degenerasi atau kelebihan proliferasi sel dapat menyebabkan himen mikroperforata. Beberapa pilihan tatalaksana pada HI, yaitu himenektomi (insisi krusiata atau eksisi himen), pembedahan dengan konservasi himen (insisi vertikal simple dan himenotomi anular), laser CO2, atau insersi kateter Foley.
Kesimpulan: Anamnesis dan pemeriksaan fisik yang baik dapat membantu mendiaganosis penebalan himen dengan tepat. Himenektomi merupakan salah satu tatatalaksana alternatif untuk wanita yang sudah menikah.

Kata kunci: himen imperforate; himenektomi; microperforate hymen; penebalan himen,

Introduction

Imperforate hymen (IH), an uncommon congenital anomaly, is a failure to completely canalize the hymen. The incidence of IH is uncommon, around 0.05-0.1%.[1] The association with developmental anomalies is still controversial. Some reports state that it is not generally related to Mullerian anomalies, while most cases occur sporadically, and no genetic mutations are identified.[2] It is often diagnosed in adolescent girls presenting with amenorrhea and lower abdominal pain or urinary retention. Therefore, IH is usually diagnosed incidentally until menarche.[3]

One of the IH variants is micro perforate or sleeve hymen. It is not present as an obstruction; however, there will be menstrual reflux depending on the degree of perforation. In micro perforate hymen, the menstrual blood is usually accompanied by malodorous discharge. Most of the IH patients complain of difficulty placing tampons or penetrative vaginal sexual activity.[4] Meanwhile, in sleeve hymen cases, there are no symptoms; however, it may interfere with tampon use, menstrual flow, or sexual activity.

Delayed diagnosis of micro perforate or sleeve hymen is common due to low incidence, non-specific symptoms, or insufficient physical examination.[5]with the hymen completely obstructing the vaginal opening. Despite the simple diagnosis and treatment of IH, missed or delayed diagnosis is often a clinical problem owing to its low incidence, nonspecific symptoms, or insufficient physical examination. The aim of this study is to identify the characteristics, clinical presentations, treatment modalities, and outcomes of imperforate hymen patients. In this study, a literature search of PubMed, Scopus and Medline databases was performed for sources published up to 3 July 2018 for English-language studies with the term \"imperforate hymen\". The literature review identified 251 citations and 155 articles (143 case reports, 12 case series Several married women have assumed the symptoms as vaginismus. Furthermore, vaginismus is the persistent involuntary spasm of the muscles of the outer one-third vagina interfering with sex, making the penis is difficult to penetrate the vaginal canal.[6] The symptoms of vaginismus can be varied, including fear, anxiety, and pain of vaginal penetration, severe pain with penetration, and an inability to tolerate a gynecological examination.[7]anxiety, and pain with penetration attempts.\n\nAim\nnTo present a large cohort of patients based on prior published studies approved by an institutional review board and the Food and Drug Administration using a comprehensive multimodal vaginismus treatment program to treat the physical and psychologic manifestations of women with vaginismus and to record successes, failures, and untoward effects of this treatment approach.\n\nMethods\nAssessment of vaginismus included a comprehensive pretreatment questionnaire, the Female Sexual Function Index (FSFI Therefore, clinicians have to be aware of the clinical complaints and perform careful gynecological examinations to diagnose sleeve hymen. The ideal time for surgical intervention is before the onset of pain and after pubertal development because the vaginal tissue has been estrogenized. Before starting the procedure, a urethral catheter should be placed to confirm the exact location of the urethra. An initial cruciate or U-shaped incision uses sharp dissection or needlepoint cautery. The redundant hymenal mucosa should be excised, and mucosal edges should be reapproximated using absorbable sutures in an interrupted way for hemostasis.[4]

This report aims to describe a sleeve hymen in a newly married woman and the surgical approach to this patient.

Case Report

A 24-year-old newly married woman came

to the gynecology polyclinic complaining of difficulty with sexual intercourse in the last 6 months. She felt painful and hard penile penetration since the first time of sexual intercourse. She has regular menstruation with a 28–30-day cycle and lasts for 4-6 days. No other complaints were related to menstruation, such as dysmenorrhea, dysuria, and dyschezia. Apart from that, no other irregular postmenstrual was spotted. The menarche occurred at the age of 11 years.

Vital signs showed normal limits. Body mass index was 16.8 kg/m^2 in correspondence with underweight. On gynecological examination, tanner stage as sexual maturity rating (SMR) was normal in tanner stage 4 for breast (thelarche) and stage 5 for pubic and axillary hair (pubarche). Inspection of external genitalia showed there was a hymen covering all vaginal introitus without an erythematous surface (Figure 1). No physical violence was found around the genital. In vaginal toucher examination, the finger cannot penetrate this elastic hymen due to prominent hymen. In rectal toucher, the uterus and both adnexa were normally palpable. There was no transvaginal ultrasound performed.

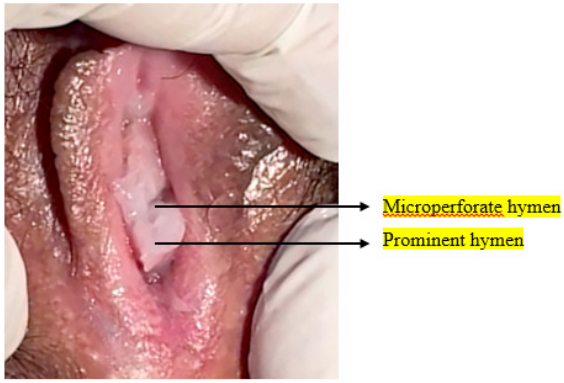


Figure 1 The appearance of the Hymen Covering all Vaginal Introitus

The diagnosis of this patient was sleeve hymen with a differential diagnosis of micro perforate hymen as part of IH. The patient underwent a U-shaped incision far away from the urethra and continued with hymenectomy (Figure 2). Around 14 days after the hymenectomy, the patient was able to have sexual intercourse and was satisfied with the result.



Figure 2 After U-shaped incision procedure

Discussion

Hymen is the junction of the urogenital sinus and sinovaginal bulbs. When hymen is perforated, there will be a connection between the vestibule and the vaginal canal. The failure of this stage impact to IH. It is a rare congenital anomaly with an incidence of 1 in 1000.[8] It is often diagnosed during adolescence after menarche with amenorrhea and abdominal pain. Most of the IH patients are asymptomatic until menarche.[9] According to a systematic review in 2019, 54.2% of patients complained of abdominal pain, 20.3% with urinary retention, 14% with abnormal menstruation, 9.7% with dysuria, and 5.1% with urinary frequency.[5]with the hymen completely obstructing the vaginal opening. Despite the simple diagnosis and treatment of IH, missed or delayed diagnosis is often a clinical problem owing to its low incidence, nonspecific symptoms, or insufficient physical examination. The aim

of this study is to identify the characteristics, clinical presentations, treatment modalities, and outcomes of imperforate hymen patients. In this study, a literature search of PubMed, Scopus and Medline databases was performed for sources published up to 3 July 2018 for English-language studies with the term \"imperforate hymen\". The literature review identified 251 citations and 155 articles (143 case reports, 12 case series

Embryologically, the hymen appearance changes with estrogen exposure, resulting in the hymen being paler in color, more elastic, more redundant, and less sensitive to touch. The infant hymen is typically thick and redundant as a result of maternal estrogen exposure in utero. There are two stages when estrogen affects the hymen; the first phase is from birth through the first year, while the second phase happens when starting puberty.[10] Excess of estrogen status can cause the thickening of the hymen, called sleeve hymen or "redundant" hymen. Meanwhile, epithelial cells' failure in the center of the hymen to degenerate or excess cell proliferation may cause a microperforate hymen. We suspected sleeve hymen because the patient still got menstruation each month, and she had difficulty in sexual intercourse. In micro perforate hymen, the patient usually complains of postmenstrual spotting due to poor drainage. Microperforated hymen often cause ascending pelvis and urinary tract infections due to partial obstruction. On genital examination, the hymen covered all vaginal introitus as a thick and redundant hymen.[11]

There are several choices of treatment for IH, including hymenectomy (cruciate incision or hymen excision), hymen-preserving surgeries (simple vertical incision and annular hymenotomy), carbon dioxide laser, or insertion of a Foley catheter.[5,12]

In IH, a urethral catheter should be placed pre- and intraoperatively to determine the exact location of the urethra. Initial cruciate or U-shaped incision is performed using a sharp incision or needlepoint injury (Figure 3). After that, suturing the margin is useful to maintain patency and prevent restenosis.[4] A thicker hymenal membrane should be surgically resected to minimize the risk of ascending infection and sepsis. Meanwhile, a thinner membrane can be treated by a vertical incision.[13] After surgery, aggressive irrigation of dilated vagina should be conducted to prevent the risk of secondary ascending infection. For postoperative care, a topical emollient such as zinc-based diaper cream, petroleum jelly, or coconut oil can be applied several times a day during recovery. Sexual activity should be avoided for approximately

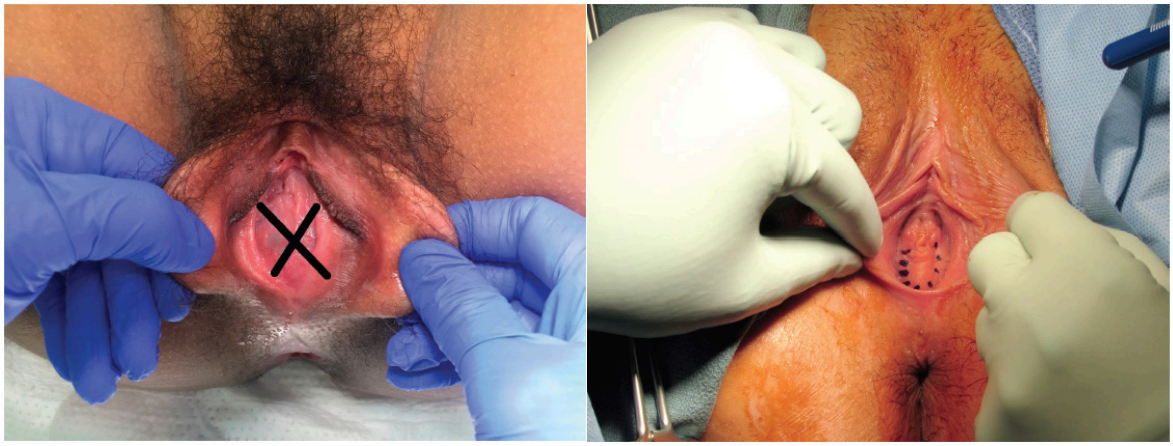


Figure 3 Illustration for the initial cruciate of the U-shaped incision[4]

2 weeks until the bleeding and discharge is resolved.[4] In our case, the sleeve hymen was incised U-shaped to avoid the urethra; we did not perform hymen-preserving surgery since the patient has been married.

Conclusion

Sleeve hymen, as part of IH, is a rare congenital anomaly that is usually diagnosed after puberty. Good anamnesis and physical examination can lead to the correct diagnosis. Hymenectomy is one of the alternative treatments for married women who have less concern about hymen-preserving surgery.

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