

A pregnant virgin with microperforate hymen: A noteworthy obstetric case

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Abstract

A Pinhead-sized hymenal opening can permit spontaneous pregnancy. A 26-year-old primigravida presented to our institution for antenatal care in the late 2nd trimester. She reported to have conceived through contact of semen with her vulva, but had never had penetrative vaginal sex. On subsequent follow up, a decision to have an elective caesarean at 39 weeks was made. We report this example because management of such cases can be challenging especially if a timely diagnosis is not made due to lack of awareness and the patient presents when pregnant.

Key words: Pregnant virgin, Elective caesarean, Microperforate hymen, Dilation

Introduction

The hymen is a thin connective tissue membrane at the distal end of the vagina, which partially closes the introitus. When it has a very small opening into the introitus, as small as a pinhead, it is said to be microperforate (1). Microperforate hymen can result in one or more of complications such as infertility, sexual dysfunction, primary amenorrhea, acute or chronic pelvic pain, abnormal vaginal bleeding, dysuria, pollakiuria or a foul-smelling vaginal discharge (2). These complications depend on the size of the opening through the hymen. It can be severe enough to mimic an imperforate hymen. Since the pinhead hole can allow passage of semen into the vaginal canal, patients with microperforate hymen can present as pregnant virgins (1). We present such an occurrence.

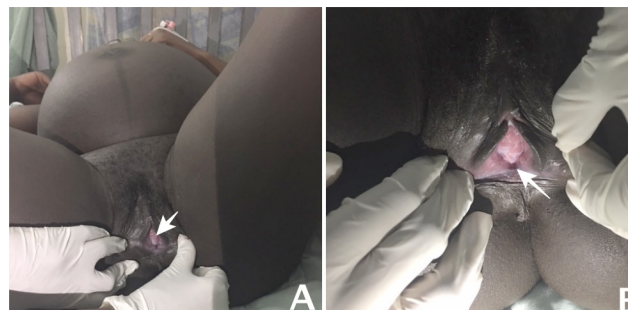
Case report

A 26-year-old primigravida presented to our clinic at 29 weeks gestation, by her last menstrual period, for routine antenatal care. She was not married, but was in a stable relationship. She reported to have never had vaginal intercourse with her partner. The reasons she gave for this was fear of penetration. She had tried several attempts of penetration that were futile, which made her more anxious. Sexual activity for her was heavy petting, and coitus inter-femora, that resulted in ejaculation by her partner at the introitus. Her previous partner left her due to her inability to allow for vaginal penetration. She had never been sexually assaulted and had never used tampons. Her menstrual cycles were regular prior to this conception.

On examination, her vital statistics were normal, general examination as well as secondary sexual characteristics were unremarkable. Her fundal height

at the time was 30 weeks. Inspection of the vulva revealed a pink thick membrane covering the introitus with a small opening that could allow a tip of a finger (Figure 1). Her antenatal profile was as follows; Blood group A+, haemoglobin of 11.3mg/dl, HIV and VDRL serology were negative.

Figure 1: Illustration of the primigravid with a microperforate hymen. A shows the pinkish membrane (white arrow) covering the introitus in a gravid female, while B shows a small perforation through the membrane illustrated by the white arrow



She was advised to attempt serial self-dilation with digits and vaginal penetration to plan for delivery. On follow up visits, it was noted that she was unable to practice this advice and a decision for an elective caesarean section scheduled for 39 weeks was made. A diagnosis of microperforate hymen was made. She underwent an elective caesarean as was planned, delivered a healthy baby. At the same time, serial Hegar's dilators were used to widen her hymen while she was under spinal anaesthesia. She was discharged on the 3rd post-operative day.

Discussion

Microperforate hymen is a rare hymenal obstructive congenital abnormality characterized by a vaginal

membrane with a tiny opening (3). Together with imperforate hymen, they are the commonest causes of vaginal outflow tract obstruction. These anomalies are thought to occur sporadically since the mode of inheritance has not been determined, although familial patterns have been observed (4). The small hole in microperforate hymen allows for flow of menstrual blood, however, in some cases it may be slow and painful. Sexual dysfunction is common among patients with microperforate hymen. In our case for example, the patient was unable to have penetrative vaginal sex and preferred coitus inter-femora. Some reports have presented unusual sexual practices in these patients such as urethral coitus (5)

Treatment of microperforate hymen involves excision of the hymenal ring close to the vaginal wall as well as a perineoplasty to avoid narrowing of the introitus (6). Minimally invasive treatment of microperforate hymen using progressive cervical dilators is an alternative technique to excisional hymenectomy (7). This procedure has an advantage of preserving the hymen, especially for women whose cultural beliefs highly regard virginity. Reproductive health workers should be aware of this condition because early management may result in marriage dysfunction, dyspareunia, infertility and pregnancies in virgins. When these patients present when pregnant as in this report, an elective caesarean and progressive cervical dilation is recommended.

Consent

Consent was obtained from the patient for the publication of this case and the attached images.

Competing interests: None

References

1. Goto K, Yoshinari H, Tajima K and Kotsuji F. Microperforate hymen in a primigravida in active labor: a case report. *J Reprod Med.* 2006; **51**(7): 584-586.
2. Güven D, Bakay K and Kuruoglu S. Microperforate (Pinhole) hymen and infertility; a rare case report. *Open J Obstet Gynecol.* 2012; **2**: 287-288.
3. Shukunami K, Kaneshima M, Kurokawa T, Kubo M and Kotsuji F. Microperforate hymen at 27 years of age diagnosed with withdrawal bleeding and hysteroscopy. *Arch Gynecol Obstet.* 2000; **264**(1): 4950.
4. Watrowski R, Jäger C, Gerber M and Klein C. Hymenal anomalies in twins--review of the literature and case report. *Eur J Pediatr.* 2014; **173** (11): 1407-412.
5. Di Donato V, Mancini N, Palaia I, Bellati F, Perniola G and Panici PB. Urethral coitus in a patient with a microperforate hymen. *J Minim Invasive Gynecol.* 2008; **15**(5): 642-643.
6. Kumar V, Kuar KV, Krishnamurthy KH and Kumar. A rare case report of microperforate hymen with difficulty in penetration. *J. South Asian Feder Menopause Soc.* 2014; **2**(2): 97-98.
7. Segal TR, Fried WB, Krim EY, Parikh D and Rosenfeld DL. Treatment of microperforate hymen with serial dilation: a novel approach. *J Pediatr Adolesc Gynecol.* 2015; **28**(2): e 21-22.