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**Case Report**

# Microperforated hymen with pregnancy presenting at term: an accidental diagnosis

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## ABSTRACT

Anatomic variations of the patent hymen exist, the most common configuration having a central orifice. Difficulty in inserting a tampon or the inability to achieve vaginal intercourse in an adolescent is the typical presenting symptom of incomplete hymenal obstruction. Here, a case is reported wherein the patient presented with normal pregnancy at term with an apparently intact hymen. Later in labour, a microperforate hymen (MH) was noted. An emergency lower segment caesarean section along with hymenectomy was performed.

**Keywords:** MH, Caesarean section, Hymenectomy

## INTRODUCTION

Anatomic variations of the patent hymen exist, the most common configuration having a central orifice. Variations include displacement of the orifice to the periphery. In the extreme cases, it results in a crescentic membrane. In some patients, the perforations do not become confluent and a cribriform pattern with multiple small perforations.[1] In patients with incomplete hymenal obstruction the cause is either a cribriform hymen or hymenal band. Difficulty in inserting a tampon or the inability to achieve vaginal intercourse in an adolescent is the typical presenting symptom of this condition. The incidence of MH is very rare.

## CASE REPORT

A 24-year-old primigravida, married for 1 year, a post-graduate by qualification, a housewife, reported for the first time with 38 completed weeks of gestation with spot hypertension of 150/96 mm Hg.

She was otherwise asymptomatic.

### *Menstrual history*

Menarche-at 14 years of age, regular cycles with 4-5 days duration with no dysmenorrhoea. Flow-Average. Married for 1 year, she had with no coital problems. Bowel and bladder functions normal.

### *Obstetric history*

Primigravida, conceived spontaneously. She had regular antenatal checkups. Reported to us for the first time at 38 weeks and 3 days for checkup and safe confinement. ANC investigations-WNL, blood group-A, Rh positive.

### *Past and family history*

Nil relevant.

### *General examination*

Well-built and nourished, vital parameters stable, BP-150/96 mmHg, no pallor/pedal oedema. Body weight-86 kg.

***Systemic examination***

NAD. Per abdomen: Uterus term size, cephalic presentation, head 5/5 palpable, LOA, with normal FHR. NST was reactive, RFT, LFT, platelets were normal. Urine proteins trace. USG-SLIUF, cephalic presentation, corresponding to 38 weeks 3 days, BPP was 8/8, EFW=2985±250 gm.

Per vaginal examination for pelvic assessment and Bishop's scoring for cervical inducibility, revealed the external genitalia to be normal but there was an intact hymen with no obvious hymenal opening communicating the vagina with the exterior.

***Diagnosis***

Primigravida at 38 weeks gestation, gestational hypertension with intact/ imperforate hymen.

She was admitted for elective LSCS with exploration of vagina and hymenectomy, but soon after admission, the patient c/o blood-stained vaginal discharge. Local examination revealed a spot of blood on the hymen seen coming out through pinhole hymeneal opening (Figure 1).

**Figure 1: Spot of blood as noted in labour**

LSCS was done followed by exploration of the pinhole opening on the intact hymen on OT table (Figure 2).

**Figure 2: Pinhole opening in intact hymen under anaesthesia.**

A cruciate incision was given on the hymen, and enlarged by removal of excess hymenal tissue (Figure 3).

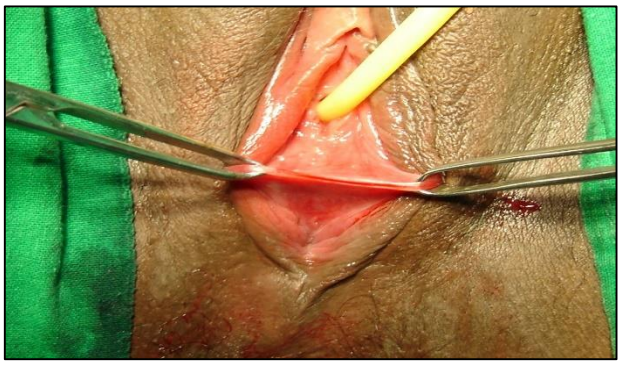

**Figure 3: Hymenectomy in progress.**

The vaginal epithelium and the margins of the hymen was then sutured with absorbable sutures (Figure 4).

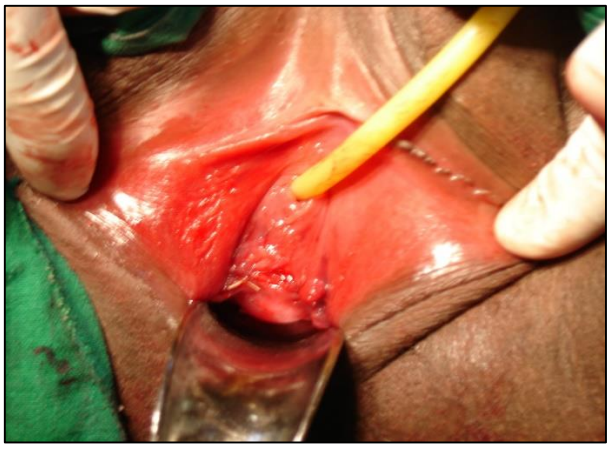

**Figure 4: Introitus after hymenectomy and suturing.**

## DISCUSSION

MH is considered a rare partially obstructive congenital anomaly. Its exact incidence is unknown with only 20 cases of MH reported in the literature.[2] In a study of 147 premenarchal girls, the hymenal configurations included: annular (concentric) 53%, crescentic (posterior rim) 29.2%, sleeve-like (redundant) 14.9%, septate 2%, and other (imperforate, cribriform) <1%. Nonspecific findings included peri-hymenal bands, longitudinal intravaginal ridges, hymenal tags, hymenal bumps/mounds, linea vestibularis, ventral or posterior hymenal cleft/notch in some of the annular or redundant hymens, failure of midline fusion, hymenal opening size >4 mm, labial adhesions, posterior hymenal concavity or angularity.[3] Hymenal abnormalities are recognised when a patient reports with difficulty in inserting tampon or menstrual cup, prolonged menstrual bleeding, dysmenorrhoea, dyspareunia, difficulty in penetration and non-consummation. They may also present with severe infection and even pyocolpos.[4] Güven et al reported a case of MH presenting with infertility.[5] In the literature,

secondary closure of the hymen has been reported in 2 cases, both of which occurred subsequent to surgical procedures that involved the hymen. Electron microscopic findings indicated hymenal tissue reorganization.[6] Brikene et al reported a case of MH presenting at eight weeks pregnancy, with history of hymenal surgery for dyspareunia earlier, carried till term, and delivered by LSCS and hymenotomy.[7] Our patient, reported with term pregnancy for antenatal checkup and delivery with an apparently imperforate hymen which was diagnosed when a pelvic examination was planned. The pinhole hymenal opening came to light when she had show presenting through the microperforated hymen, in the absence of previous surgical procedures, menstrual, coital or infertility related problems.

## CONCLUSION

In these days of scientific advancement in assisted reproductive techniques, where the sperm needs to be deposited above the cervix in-utero for a pregnancy to occur, this pregnancy has occurred without a proper penetrative sex and with sperms deposited outside the hymen.

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