Protruding Mass

A 26-year old, gravida 2, para 1001, white female at 19 6/7 weeks' gestation presents to the clinic as a transfer patient. Her prenatal care began at 10 weeks' gestation. She lives with her husband and 2-year-old child. They recently moved because of her husband's job. She works full-time as a waitress.

PAST OBSTETRIC HISTORY

The patient's history is significant for 1 pregnancy resulting in a vaginal birth of a full-term infant weighing 3,010 g. The total labor time was 8 hours; the second stage lasted for < 15 minutes. During delivery, the patient sustained a 4th degree laceration. Immediately after delivery, her uterus prolapsed (Pelvic Organ Prolapse Quantification [POP-Q], stage III) (Figure 1).[1,2] The POP-Q is a standardized system of terminology used to describe female pelvic organ prolapse and pelvic floor dysfunction. Six anatomic points are evaluated in reference to the plane of the hymen (Figure 1).[1] The patient should be examined both in a supine and standing position.

PAST MEDICAL HISTORY

Before her first pregnancy, the patient had no history of uterine prolapse, urinary incontinence, frequent urinary tract infections, or dyspareunia. Since childbirth, she feels pelvic heaviness and vaginal bulging and is having difficulty walking and sitting. She experiences low back pain (LBP), especially when standing. Although able to manually reduce the prolapse, vaginal-penile intercourse is a challenge and is painful. She has been seen by her obstetrician/gynecologist multiple times for these issues. The patient was referred to a physical therapist for pelvic floor muscle therapy (PFMT). PFMT involves instruction in methods to isolate and contract the muscles of the pelvic floor. PFMT is not intended to reverse anatomic instability but is for vaginal support and relief of urinary urgency, frequency, and incontinence.[3,4] At the initial physical therapy evaluation, the patient reported amenorrhea, had a positive pregnancy test, and was unable to participate in PFMT.

CURRENT OBSTETRIC HISTORY

Her vital signs are normal, and her prepregnancy weight was 99 lb. She denies smoking, alcohol, or other drug use. Her expected date of delivery is consistent with her last menstrual period, fundal height (FH), and early first trimester transvaginal ultrasound.

Assessment

Initial Transfer Obstetric Visit at Gestation 19 6/7' Weeks. At the initial transfer obstetric visit, the patient's weight is 105 lb; the fetal heart tones (FHTs) are 136; there is good fetal movement (GFM); the fundus is 2 finger breadths below the umbilicus; she denies symptoms of preterm labor (PTL) (abdominal or pelvic cramping, bleeding, or spotting); she reports increased vaginal pressure, dyspareunia, and LBP while standing; she admits to wearing panty liners daily for urinary incontinence; and her urine glucose and protein are negative. Vaginal examination (VE): Positive for a reducible POP-Q = stage II[1,2] uterine cervical prolapse; with valsalva the cervical os increases to approximately 1.0 cm below the level of the hymen. Management: donut-type, vaginal pessary fitting; reduction of prolapse and placement of pessary (Figure 2). Pessaries are used to keep the pelvic organs from bulging beyond the opening of the vagina. When fitting a pessary, a general rule of thumb is to choose the smallest one that will not fall out.[4]

IMAGE OF THE MONTH

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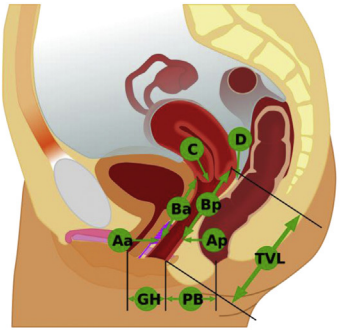
Figure 1. POP-Q Examination. Top image by Tsaitgaist at http://en.wikipedia.org/wiki/Female_genital_prolapse.



The POP-Q Exam is used to quantify, describe, and stage pelvic support.

- Six points are measured at the vagina with reference to plane of the hymen.
- The points above the hymen are negative (-3, -2, -1); points below are positive (+1, +2, +3).
- All measurements except total vaginal length are measured at maximum valsalva.

Anatomical Site	Description	Range of Values
Aa	Anterior vaginal wall 3 cm proximal to hymen.	-3 cm to +3 cm
Ba	Most distal position of remaining upper anterior vaginal wall.	-3 cm to + tvl
C	Most distal edge of cervix or vaginal cuff scar.	
D	Posterior fornix (not applicable if post-hysterectomy).	
Ap	Posterior vaginal wall 3 cm proximal to hymen.	-3 cm to +3 cm
Bp	Most distal position of remaining upper posterior vaginal wall.	-3 cm to + tvl
Genital hiatus (gh): Measured from middle of external urethral meatus to posterior midline hymen. **Perineal body (pb):** Measured from posterior margin of gh to middle of anal opening. **Total vaginal length (tvl):** Depth of vagina when point D or C is reduced to normal positions.		

POP-Q STAGING CRITERIA	
Stage 0	No prolapse demonstrated (Aa, Ap, Ba, Bp = -3 cm and C or D ≤ - [tvl – 2] cm).
Stage I	Stage 0 criteria not met, but the most distal portion of the prolapse is > 1 cm above the level of the hymen (leading edge < -1 cm).
Stage II	Most distal portion of prolapse is ≤ 1 cm proximal to or distal to the plane of the hymen (leading edge ≥ -1 cm but ≤ +1 cm).
Stage III	Most distal portion of prolapse is further than > 1 cm below the plane of the hymen but protrudes no further than 2 cm less than the total vaginal length in cms (leading edge > +1 cm but < + [tvl – 2] cm).
Stage IV	Complete eversion of total length of lower genital tract (leading edge ≥ + [tvl – 2] cm).

Adapted from: *Bump RC, Mattiasson A., Bo K, Brubaker LP, DeLancey, JOI, Klarskov P, Shull BI, & Smith ARB. The standardization of terminology of female pelvic organ prolapse and pelvic floor dysfunction. American Journal of Obstetrics & Gynecology, 1996; 175:10-17.*

Gestation 26 2/7: FHTs 144, GFM, FH 24 cm, denies symptoms of PTL, is able to manually reduce her cervix in order to urinate, and urine glucose and protein are negative. VE: edematous, elongated cervix; with gentle straining, the cervical os increases to 3.0 cm below the level of the hymen. While wearing her pessary, the patient's LBP is worse, and she now experiences sciatic pain. Management: urine negative for bacteriuria. A Prenatal Cradle (www.perinatalcares.com; Clare, MI) was recommended to provide orthotic support of the abdomen and back, reduce round ligament straining, lift uterine weight from the pelvis to ease hip pain, improve circulation to lower extremities, and decrease LBP and sciatica. The patient chose to discontinue the use of her pessary.

Gestation 33 2/7: FHTs 148, GFM, FH 30 cm, she denies symptoms of PTL, is experiencing urinary retention, and her urine glucose and protein are negative. She says that her cervix is "hanging out of my vagina." VE: Consistent with POP-Q = C+3, stage III[1,2] uterine cervical prolapse with an enlarged