Pelvic Organ Prolapse

Clinical Case Applicability: urinary incontinence, pelvic organ prolapse

Learning Objectives:
1. Describe the normal anatomy of the pelvic floor
2. Understand the pathophysiology of pelvic organ prolapse (POP)
3. Understand the different management options for POP

Clinical Presentation: A sensation of bulging in the vagina that can be accompanied by urinary/fecal incontinence, incomplete bladder emptying, constipation, dyspareunia; NOT typically painful

What are different types of prolapse? (figure 1)
- Cystocele (bladder, anterior vaginal wall)
- Rectocele (rectum, posterior vaginal wall)
- Uterine prolapse (uterus)
- Vaginal vault prolapse (vagina after hysterectomy)

What are the risk factors for POP?
- Major risk factors: vaginal birth (Risk ↑ 1.2 times with each vaginal delivery) & aging
- Other risk factors include: menopause, chronically increased intra-abdominal pressure, constipation, increased BMI, pelvic floor trauma and connective tissue disorders

What is the anatomy of the normal pelvic floor?
Delaney’s 3 levels of support for the vagina (figure 2):
1) Apical: cardinal-uterosacral ligament complex provides apical attachment of the uterus and vaginal vault to the sacrum (defect: uterovaginal prolapse)
2) Mid vagina: arcus tendineus fascia pelvis & the fascia overlying the levator ani muscles (defect: cystocele)
3) Distal vagina: urogenital diaphragm and the perineal body (defect: distal rectocele, perineal descent)

1° support: Levator ani: group of 3 paired muscles: iliococcygeus, pubococcygeus, puborectalis (figure 3)
- works as a “sling”, provides the foundation of support
- Innervated by sacral plexus/pudendal nerve
2° support: endopelvic fascia: fibromuscular sheath

What is the pathophysiology behind POP?
Proposed mechanisms include:
1. Levator ani defects: Injury/avulsion during childbirth → higher rates of prolapse associated with increasing severity of these muscle defects
2. Age-related change: incidence doubles between age 20-59; may be secondary to physiological changes in aging, degenerative processes & decreased estrogen; ↓ collagen content, collagen stiffer/more fragile
3. Connective tissue dysfunction: increased incidence in women with connective tissue disorders (Ehlers-Danlos); injury (i.e. during delivery) → abnormal tissue repair → instability & prolapse

How is prolapse diagnosed?
History & pelvic exam; use of POP-Q – objective classification system for describing/staging prolapse; quantitative measurements of various points at rest and with Valsalva (anterior, apical, posterior)

What are the treatment options available for POP?
- Expectant management
- Pelvic floor physical therapy: may limit progression and alleviate prolapse symptoms
- Vaginal pessaries fitted into the vagina and include support & space-filling pessaries
- Surgery: includes hysterectomy and reconstructive options
References:


-Rogers, RG, Fashokun, TB. Pelvic organ prolapse in women: Epidemiology, risk factors, clinical manifestations, and management. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. (2018)

-Fashokun, TB, Rogers, RG. Pelvic organ prolapse in women: Diagnostic Evaluation. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. (2017)