

Pelvic Organ Prolapse

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POP

- 1:5 Australian women will need surgery in lifetime
- USA: cost of ambulatory care 2005-2006 = \$300 mil
- USA: Surgery for POP commonest in hospital surgical procedure in women > 70 yo
 - Cost likely to expand over time: ageing population

Patient A

- 36 yo P4
 - 4 x VD: forceps + episiotomy with 1st child
 - Presents with vaginal mass, minimal USI, no DO, normal bowel F
- O/E: Stage 2 prolapse: Cystocele to hymenal ring, Cx to upper mid vagina, small rectocele well above hymenal ring.
 - Abdominal striae ++

Risks Factors

1. Pregnancy and childbirth
 2. Parity
 3. Forceps
 4. Genetics

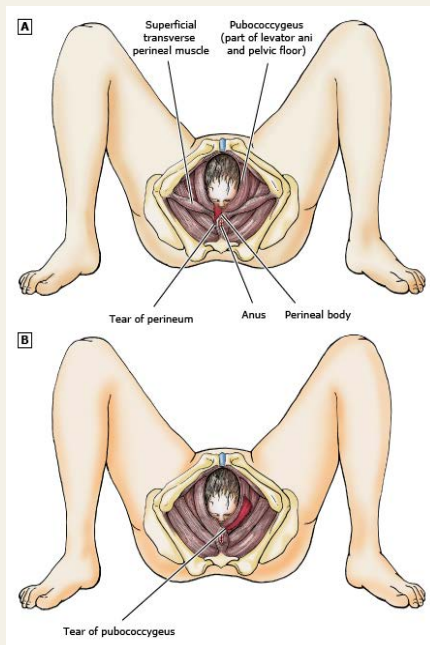
Pregnancy and Childbirth

- Biological mechanisms not fully understood
- Probably combination of nerve, muscle, connective tissue injury

Neural Injury

- EMG and pudendal nerve latency studies: denervation of pubovisceral muscles and AS after 40-80% of VD
- Risks Factors: operative VD, prolonged 2nd stage of labour, LGA baby
- Denervation injury resolves after 1st year post partum for majority of women but may accumulate with increasing parity

Muscle Injury



- Levator avulsion in 20% VD
 - Rarely with C/S
 - Forceps OR 5x vacuum
- Prevalence 36% in Australian women seeking Rx for POP
- Assessment currently not clinically useful since no proven therapy
 - Mediolateral episiotomy no worse than spontaneous 1st + 2nd degree perineal tears

Fascial Injury

- Separation of endopelvic fascia from lateral attachments: paravaginal defects
- Associated with urethral hypermobility, USI, poor anterior support
 - Significance ?

Parity

- P0: 0.6%
- P1: 2.5%
- P2: 3.7%
- P3+: 3.8%

Parity

- It is estimated that 75% of prolapse in parous women attributable to pregnancy and childbirth
 - Effect of parity decreases with age except for P0

Mode of Delivery

- Case-control data shows significant risk of VD (non-operative) over C/S:
93% vs 2%
- Survey 20 years after delivery shows rates of POP for VD and C/S of 14.6%
vs 6.3%

Forceps

- 2 x risk of POP vs SVD
 - Vacuum does not appear to increase risk
 - Decline in forceps 1989-2009: decline in surgery for POP
- Role of episiotomy unclear: one study found no increased risk of POP 5-10 years after delivery

Genetics

- Pregnancy: increased production of Elastin and Collagen
 - Vagina becomes distensible
- Distension > release of collagenase from fibroblasts > collagen degradation
- After delivery > increased synthesis of collagen and elastin > remodeling of pelvic floor

Genetics

- ? Defects in biochemical processes > prolapse
- Animal studies > impaired synthesis of elastin > prolapse

Options for Patient A

- Establish expectations and set goal
 - Individualise Rx
 - ? Impact on QOL
- **Studies consistently demonstrate that patient satisfaction after POP surgery correlates highly with self-described goals, but poorly with objective outcomes**
 - Does it look better than it feels or does it feel better than it looks?

Options for Patient A

1. Observe
2. PF physio
3. Pessary
4. POP surgery

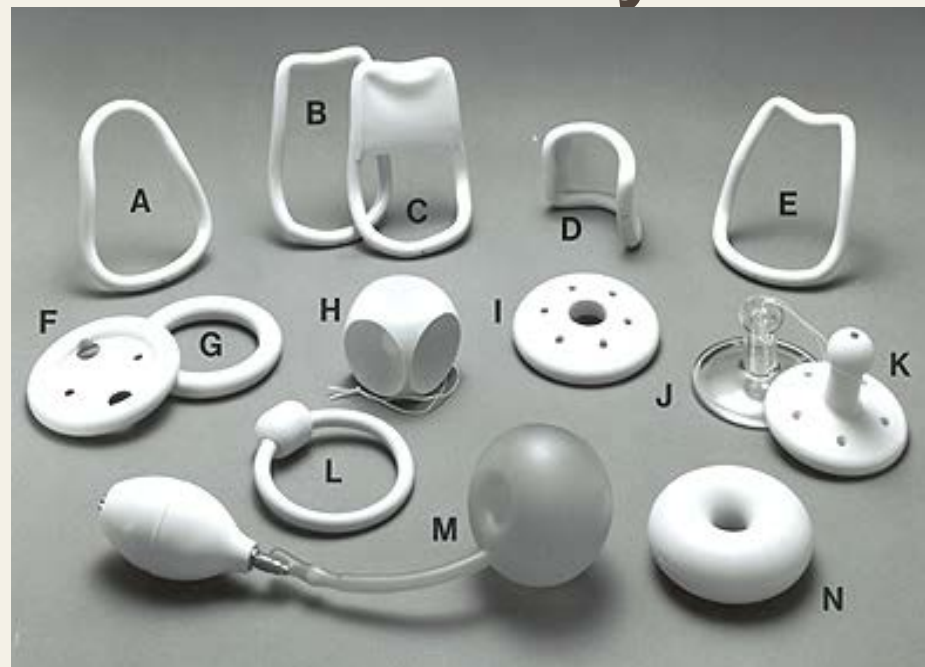
Observation

- Symptoms may stabilise or even improve over time (esp after menopause)
 - ? QOL impact

PF physiotherapy

- Randomised trials demonstrate efficacy of individualised Rx
 - 57% reported improvement in one study

Pessary



Pessary

- Support pessary: ring pessary
 - Cohort studies: 2-3 fittings
- Short-medium term studies: resolution of prolapse symptoms in 70-90%
 - Satisfaction and continued use in 62% after 1-2 years
 - Allows sexual intercourse (90%)

Pessary

- Most common predictors for failure are previous surgery for POP, hysterectomy, and concurrent USI
- Short vaginal length (< 6 cm) and wide vaginal introitus (> 4 finger breadths)
- Predictors for discontinuation: severe posterior prolapse, unmasking of USI, desire for surgery at first visit
 - Serious complications are rare: incarceration, fistula

Surgery for POP

- For women who fail or decline conservative Rx
 - **NOT FOR ASYMPTOMATIC PROLAPSE**
- 40% of asymptomatic women are found to have stage II + prolapse on routine pelvic exam
- Most surgeons recommend deferring surgery till childbearing complete but no data

Patient A

- Anterior colporrhaphy
 - Success rates at 1-2 years of 40-80%
 - 30-40% recurrence
- ? Mesh: while subjective cure appears better with mesh, QOL and reoperation rates are similar
- Risks of mesh: Exposure (pain, PVB/discharge, asymptomatic): 11%, contraction (pain), pain, infection
 - De novo USI higher with transobturator mesh
 - Paravaginal defect repair: not successful

Concomitant USI Surgery?

- If existing USI
 - 13-65% of women develop USI after surgery for POP
 - ? Pre-operative testing for occult USI
 - 40% of patients with –ve test will develop post-op USI
- Data supports prophylactic surgery in women who have stage II+ prolapse and are having apical support surgery BUT higher complication rate

Patient B

- 53 yo postmenopausal woman, P3, previous VH for menorrhagia, still sexually active
 - p/w symptomatic vaginal mass, no USI, + OD symptoms
- O/E: Stage III prolapse, vault 2 cm beyond introitus, cystocele, large rectocele, deficient perineum with patulous introitus

Options?

1. Observe?
2. PF physio
3. Vaginal E2
4. Pessary?
5. Surgery

Vaginal E2/SERMs

- No evidence
- Systematic review of 6 RCTs: Raloxifene reduces need for surgery in women 60 or older (OR 0.5)

Surgery: Vault Prolapse

- Abdominal Mesh Sacral Colpopexy gold standard: better objective anatomical cure rates
- However, compared with vaginal procedures (SSC, uterosacral ligament fixation): similar rates of post-op POP symptoms, reoperation rate, adverse events
- Laparoscopic/Robotic approach gives equivalent cure rates but more anterior compartment prolapse post-op: none of the women had symptoms or required reoperation

Vault Prolapse

- Abdominal approach ? More appropriate where increased risk of recurrence
e.g.. Obesity, young age, high-impact activity, stage III + IV POP, previous
POP repair surgery

Posterior Vaginal Prolapse Repair

- Traditional posterior colporrhaphy has cure rates 76-96%
 - OD improves in 87%
 - Site specific repair 82-100%
- Move away from mesh for posterior compartment
 - Evidence only from small case series

Posterior Repair

- One RCT: n=106 patients
- Posterior colporrhaphy vs sites-specific vs site-specific + porcine mesh
 - At 1 year, cure rate: 86% vs 78% vs 54%

Patient C

- 76 yo woman, P3: 3 x VD, bed-bound, Type II DM, IHD: previous CABG, peripheral vascular disease, previous DVT x 2
 - Painful vaginal mass
 - O/E: Stage IV prolapse/proccidentia with cervical erosion

Options?

1. IDC + vaginal pack
2. Space-filling pessary such as cube pessary: discharge, vaginal erosion, fistula
3. Obliterative surgery: colpocleisis
 - Advantages: Short duration, low morbidity, low risk of recurrence (successful > 90%; urine retention cured > 90%)
 - Disadvantages: Impedes penetrative intercourse; inability to assess Cx/uterus vaginally

THANK YOU