Vaginal Mesh Repair of Cystocoele & Rectocoele

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Introduction

Traditional anterior repair/colporrhaphy usually with Kelly’s sutures has been used since 1914 for the vaginal repair of cystocoele and stress urinary incontinence respectively. Similarly, posterior repair or colporperineorrhaphy is the procedure of choice for vaginal rectocoele. However, both procedures are only useful for central cystocoele/rectocoele, i.e., a central defect in the pubocervical fascia / rectovaginal septum respectively, not a lateral cystocoele/paravaginal defect, i.e., a unilateral/bilateral detachment of the pubocervical fascia / rectovaginal septum from the arcus tendineus fascia pelvis/’white line’.

Why should a synthetic mesh be used?

• Reinforces weakened/torn/detached pubocervical fascia / rectovaginal septum at primary / secondary vaginal cystocoele / rectocoele repair
• Ability to repair lateral cystocoele/paravaginal defect vaginally instead of abdominally / laparoscopically
• No need to excise ‘redundant’ vaginal skin as in conventional surgery → prevents thinning & narrowing of vagina → avoids dyspareunia / areapurenia
• Reduces the incidence of recurrence of cystocoele and rectocoele by 50%

Complications of synthetic meshes and their prevention

Complications:
• Infection
• Rejection / Erosion / Sinus / Fistula
• Failure/Recurrence

Prevention:
• Sound surgical technique/s
  ✓ Correct surgical plane/s → avoids perforation of bladder / rectum
  ✓ Good haemostasis
  ✓ Wound ‘toilet’
  ✓ Fix mesh tension-free with anchoring sutures to prevent migration & ‘curling’/folding
  ✓ Adequate closure of incision/s without inclusion of the mesh
• Correct choice of an appropriate mesh
• Prophylactic antibiotics
• Pre- & post-operative topical oestrogen

Is the type of synthetic mesh important?

On the basis of mesh classification by both pore & interstice size, evidence would favour the selection of a type I monofilament material such as polypropylene (Amid PK. Hernia 1997; 1: 15-21). Gynecare Gynemesh PS (Ethicon, Johnson & Johnson) is such a mesh but has wider pore size, is 70% softer and hence more flexible than their original Prolene mesh and is an improvement over their Vypro (Vicryl/Prolene) mesh for vaginal repairs. It has recently been approved by the FDA (USA). Further evaluation by RCTs is necessary for synthetic meshes to be widely accepted by gynaecologists, especially for primary vaginal repair of cystocele & rectocele.