A modified abdominal sacrocolpopexy procedure for genital prolapse with apical descent.

Thilina Palihawadana, Sambit Mukhopadhyay, Edward Morris. Norfolk and Norwich University Hospital, Norwich, United Kingdom

Introduction
In the presence of genital prolapse with apical descent, the two available surgical options include abdominal/laparoscopic sacrocolpopexy and vaginal sacrospinous fixation (USP). Many authorities recommend an abdominal approach in young sexually active women, as the vaginal approach is known to alter the vaginal axis, thus interfering with sexual function. We describe a standardised abdominal procedure using a novel mesh kit for the treatment of apical prolapse. Current abdominal or laparoscopic mesh placements focus on restoring apical support usually with a non-standardised piece of polypropylene mesh.

Methods
The procedure involves substituting both damaged uterosacral ligaments with purpose designed alloplastic tapes (Dynamesh). The mesh was fixed at the vault/cervical stump tunnelling retroperitoneally following the anatomical path of each uterosacral ligament and sutured into the peritoneum of either side of the sacrum at S2 level. TVT insertion was undertaken at the same time if there was urodynamic stress incontinence. All patients were reviewed at 6 weeks with regard to prolapse symptoms and bladder function.

Results
We report the first 10 women undergoing this procedure within the last five months at the Norfolk and Norwich University hospital, UK. Mean age was 66.6 years (range 43-83 years) and a mean BMI was 30.4. Eight had previous prolapse repair surgery, with five of them having had SSF previously. Eight patients had coexisting urinary symptoms. Five patients had additional surgical procedures at the same time (TVT in 7, Subtotal hysterectomy in 2, bilateral salpingo-oophorectomy in 3). Average operating time was 123 minutes and there were no intra-operative or immediate post-operative complications noted. The procedure yielded excellent anatomical correction (POP Q Scores) of the prolapse with fast recovery.

The immediate outcome data
- Satisfactory anatomical correction – in all
- Urinary symptoms cure rate – 6/6 for urge, 2 had TVT concomitantly
- Mean operating time - 123 minutes
- Median hospital stay – 3 days
- Intra-operative or immediate post-operative complications - None

Conclusions
Vault prolapse is a common presentation, often following previous prolapse surgery. Correction with minimal changes in the vaginal axis should be the aim, especially in the sexually active women. This new approach has the advantages of using less implant over the traditional abdominal sacrocolpopexy owing to the design and characteristics of the mesh. The mesh is made of Polyvinylidene fluoride (PVDF), a hydrophilic copolymer with minimal tissue reaction thereby reducing the risk of shrinkage. The unique design of the mesh kit allows restoration of the uterosacral ligaments with clearly defined surgical steps, making the procedure standardised and reproducible.

The surgery is based on restoration of the pelvic floor in accordance with the integral theory proposed by Petros et al. Therefore, the surgery is expected to improve urinary urge symptoms and previous work by Jager et al have demonstrated promising results. Objectives and subjective follow-up of our patients continue.

References