TRANSVAGINAL REPAIR OF VAGINAL VAULT PROLAPSE USING NATIVE TISSUES

NICE, FRANCE. TUESDAY 9TH JUNE – 1300-1700

CHAIR: Bernie Haylen

CO-CHAIR: Bob Shull

SPEAKERS:

Peter Dwyer pdwyer @connexus.net.au Australia
Bob Shull BSHULL@swmail.sw.org U.S.A.
Bernie Haylen bernard@haylen.co Australia
Fred Milani fredmilani@me.com Netherlands
Mariëlla Withagen M.Withagen@bergmanclinics.nl Netherlands
Dzung Vu dzungv@gmail.com Australia

OBJECTIVES AND AIMS

The workshop will look firstly at the anatomical basis for optimizing support at transvaginal surgeries for female pelvic organ prolapse (POP). This will concentrate particularly at the different ligamentous / other options for vaginal vault support. There will be an extensive examination of the different intra- and extra-peritoneal applications of the use of the USLs for vaginal vault (level 1) support in combination with the various (level 2) colporrhaphies. Other native tissue vaginal vault supportive procedures such as the sacrospinous colpopexy will also be discussed.

This workshop will incorporate more discussion on colporrhaphies and more case studies, compared with a similar previous formats at IUGA in Dublin and Washington.

EDUCATIONAL VALUE

Native tissue procedures form the basics of surgery for female pelvic organ prolapse (POP) yet forums on the subject are relatively uncommon. In the rush to employ new technologies such as prostheses and grafts in the same setting, advances in native tissue surgical knowledge and techniques have been relatively overlooked. Particular to this is the importance of supportive techniques for the vaginal vault to optimize the results for native tissue surgery. The future place of prostheses and grafts in POP surgery has rapidly come under increasing pressure. This makes the need to acquire knowledge of the most effective native tissue techniques even more relevant. This workshop aims firstly to educate attendees on the relevant possible supports of the vaginal vault in native tissue surgery, in particular the
uterosacral, sacrospinous and cardinal ligaments. The focus then will be on the different surgical techniques employing these ligaments.

**PROGRAM**

**SECTION 1 – Moderators B Haylen / B Shull**

1: **Introduction / why native tissue repair of POP**  
   - **B Haylen**  
   - **5min**

2: **Anatomy:**
   - Uterosacral (USL) ligament anatomy  
     - **B Haylen**  
     - **6min**
   - Cardinal (CL) anatomy  
     - **D Vu**  
     - **7min**
   - Sacrospinous (SSL) ligament anatomy  
     - **D Vu**  
     - **6min**
   - Summary of Apical Support ligamentous options  
     - **B Haylen**  
     - **5min**

3: **Vaginal vault support at simple vaginal hysterectomy and anterior colporrhaphy (video) – my way**
   
   - **B Shull**  
   - **10min**
   - **P Dwyer**  
   - **10min**
   - **F Milani & M Withagen**  
   - **10min**

4: **Interactive Discussion – Case 1 – Simple vaginal hysterectomy / anterior repair**  
   - **10 min**

5: **Post-hysterectomy vaginal vault support using USL techniques**
   - Intraperitoneal bilateral vault fixation to USLs  
     - **B Shull**  
     - **12min**
   - Extraperitoneal bilateral vault fixation to USLs  
     - **P Dwyer**  
     - **12min**
   - Techniques, Advantages and disadvantages of SSL colpopexy  
     - **F Milani**  
     - **12min**

6: **Q & A (prior to break)**  
   - **Panel**  
   - **15min**

1-6: **Section 1 – 120min**

7: **Break – 1500-1530**  
   - **30min**
SECTION 2 – Moderator M Withagen 1530-1700

8: Posterior compartment prolapse
Posterior midline plication: technique and morbidity  F Milani  10 min
Posterior repair and perineorrhaphy quantification  B Haylen  10 min

9: Case Example 2  M Withagen/Panel
Case 2: Vaginal eversion 15 year post-hysterectomy  Panel  15min
in a 65 year old

10: Uterus-in-situ – Techniques for Uterine / Vaginal Support  Chair -  M Withagen
Should we be trying to keep the uterus?  B Shull  10 min
Sacrosinous hysteropexy (video)  F Milani  5 min
Manchester Repair – is there still a place?  P Dwyer  5 min

11: Case Example 3
Case 3: Grade 3-4 Uterovaginal Prolapse in a 37 year old  M Withagen /Panel
Para 2 – Surgical Options with/without fertility considerations  15 min

12: Case Example 4
Case 4: Post-hysterectomy prolapse in a woman  M Withagen /Panel
with a previous abdominal sacrocolpopexy  15 min

13: Summary / Close  B Haylen  5 min

8-13 Section 2 – 90 minutes

PUBLICATIONS

A: BERNIE HAYLEN and/or DZUNG VU

Relevant publications:


B: BOB SHULL

Relevant publications


C: PETER DWYER

Relevant publications


D: FRED MILANI and/or MARIELLA WITHAGEN

Relevant publications


ADDITIONAL MATERIAL

A: PETER DWYER

Vaginal vault support at simple vaginal hysterectomy/my way

Recently many new procedure for uterovaginal prolapse have been described to suspend the uterus and cervix while conserving the uterus; either by using suture hysteropexy or mesh used transvaginally or abdominally. However the traditional vaginal hysterectomy and repair continues to used frequently by clinicians in women with POP after completion of reproduction. Time and experience have shown this to be an affective and safe procedure. In two recent surveys(1,2) in the UK(82%) and in Australia and New Zealand(79%), vaginal hysterectomy and repair was the preferred procedure for uterovaginal prolapse in women once fertility is no longer required. Central to the effectiveness of the vaginal hysterectomy for uterine prolapse is the reattachment of the lateral cervical/uterosacral complex to re-support the vaginal vault. This procedure has changed little since originally described by McCall in the 1950s. For grade 3 and 4 prolapse, uterovaginal prolapse, the uterosacral ligaments need to be sutured at a higher level to provide the appropriate vault support. A video of
this procedure in a woman with a grade IV uterovaginal prolapse will be
demonstrated.

**STEPS IN VAGINAL HYSTERECTOMY AND ANTERIOR COLPORRHAPHY**

- Dissection of vagina from uterosacral complex and bladder
- Vaginal hysterectomy and bilateral salpingectomy
- Peritoneal closure

**McCall procedure**

- Uterosacral ligament complex attached to each other and to the vaginal vault

**ANTERIOR COLPORRHAPHY**

- Wide lateral dissection
- Midline plication of pubocervical fascia with interrupted 2/0 PDS
- Highest pubocervical suture tied to peritoneal/utersacral lig (anterior to apical compartment)
- Vaginal closure using interrupted 2/0 vircyl incorporating endocervical fascia

**CYSTOSCOPY**

Post hysterectomy vaginal vault support using extra peritoneal uterosacral tape technique.

Restoring apical support is essential in women with complete vaginal eversion or in women with large cystoceles where there is significant loss of support of the vaginal apex and anterior vaginal wall. Various anatomical structures are present in the pelvis are used to re-support the vaginal vault including the lateral cervical - uterosacral ligaments, iliococcygeal fascia, sacrospinous ligaments and sacrum. As the uterosacral lateral ligaments are the normal level one supports of the upper vagina and cervix it would seem that these are the most anatomically correct structure to reattach a prolapse to the vagina. This can be performed either using either an extra peritoneal or transperitoneal approach. A video of the extra peritoneal uterosacral vault suspension will be shown and the results of this procedure will be discussed.
Manchester repair – is there still a place?

In recent surveys in the UK(1) and Australia and New Zealand(2) the Manchester procedure was the preferred uterine conservation procedure for uterovaginal prolapse in 27 and 10% of surveyed gynaecologists. This procedure also has a long tradition and has been shown to be affective and safe. Complications including haematocolpos can occur although are avoidable with good surgical technique.

Conclusion

Surgical success depends on many factors including accurate patient assessment of all vaginal support defects, patient characteristics, the surgeon’s skill and experience and finally the choice of appropriate surgery to suit the patient’s

D: BOB SHULL

**Vaginal Vault Suspension at Simple Vaginal (any) Hysterectomy – Not Associated with POP**

- At the time of any hysterectomy without POP I routinely secure the uterosacral ligament pedicles separately and at the time of closure of the cuff sew them into the angles at 3 and 9 o’clock. In addition, I approximate connective tissue of the anterior and posterior compartments with a series of interrupted sutures.
Should we be trying to keep the uterus?  
A mutual decision between surgeon and patient

- In cases of colpocleisis, yes, I recommend it
- In cases of anterior or posterior POP and normal uterine support, yes, I recommend it
- When culturally or personally preferable, I try to accommodate the patient’s wishes


Post Hysterectomy Vaginal Vault Support Using USL

- 99% of the time I use an intraperitoneal technique
- With very few exceptions I use non-absorbable sutures for the suspension
- My goal is to use 2 to 3 sutures in each uterosacral ligament
- 100% of patients require cystoscopy after the suspensory sutures are tied
