Vaginal Approach for Management of Pelvic Organ Prolapse:

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Objectives

- Discuss and demonstrate vaginal route surgical options for vaginal apex prolapse
- Briefly summarize surgical outcomes of various apical suspension procedures and associated complications
Vaginal Apex Prolapse

- Native Tissue Repair
- Modified McCall Culdeplasty
- Uterosacral Ligament Suspension
  - Intraperitoneal Colpopexy
- Sacrospinous Ligament Suspension
  - Extraperitoneal Colpoepxy
Modified McCall Culdeplasty
# Vaginal Uterosacral Ligament Vaginal Vault Suspension

<table>
<thead>
<tr>
<th>Study</th>
<th>Patient Number</th>
<th>Follow-up</th>
<th>Cure Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jenkins 1997</td>
<td>50</td>
<td>6 - 48 months</td>
<td>100%</td>
</tr>
<tr>
<td>Webb et al 1998</td>
<td>693</td>
<td>11 - 22 years</td>
<td>82%</td>
</tr>
<tr>
<td>Shull et al 2000</td>
<td>289</td>
<td>2 - 6 years</td>
<td>87%</td>
</tr>
<tr>
<td>Barber et al 2000</td>
<td>46</td>
<td>16 months</td>
<td>90%</td>
</tr>
<tr>
<td>Karram et al 2001</td>
<td>202</td>
<td>22 months</td>
<td>95%</td>
</tr>
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Apical Suspension **Done**—Home Free

Does the technique used for correction of the anterior vaginal wall defect matter if the apical suspension corrects the high transverse cystocele and compensates for the proximal or midvaginal paravaginal defects?

In most cases, correction of the high transverse cystocele is all that is required.
Sacrospinous Colpopexy

- Hypogastric artery and vein
- Inferior gluteal artery
- Hypogastric plexus
- Sciatic nerve
- Sacrospinous ligament
- External iliac artery and vein
- Obturator neurovascular bundle
- Ischial spine
- Pudendal artery and vein
This postoperative phantom view shows the vagina attached to the right sacrospinous ligament.
Sacropinous Ligament Fixation Pearls

- Avoid suture bridges with absorbable suture
- Use nonabsorbable suture in the presence of a short vagina
- Tissue must oppose tissue
- Use polyglycolic acid suture so that you do not saw through ligament
- Bury nonabsorbable suture beneath vagina
Sacrospinous Ligament Fixation: Retrospective Analysis

1992 Shull et al  81 patients, 2-5 year F/U
  – 98% success for vault prolapse, 16% cystocele, 35% defects within 5 yr., 10 pts. with 3rd degree, 4 pts. to OR

1988 Morley & DeLancey  71 pts., 1-11 yr.. F/U
  – 90% complete symptomatic relief, 6% symptomatic cystocele, 4% vault, 6% vaginal stenosis, 6% GSI

1982 Nichols  163 patients  ≥ 2 yr.. F/U
  – 95% success rate, 3% recurrence, 2% short vagina
Survival Analysis of Significant Vaginal Support Defects

Figure from: Paraiso MFR, Ballard LA, Walters MD et al. Pelvic support defects and visceral and sexual function in women treated with sacrospinous ligament suspension and pelvic reconstruction. *Am J Obstet Gynecol* 1996;175:1423.
SURVIVAL ANALYSIS OF SIGNIFICANT VAGINAL SUPPORT DEFECTS OF THE ANTERIOR AND POSTERIOR WALLS, APEX, AND ANY SEGMENT

"Significant vaginal support defect" is defined as a symptomatic first degree or any second degree or third degree prolapse. Kaplan-Meier curves are illustrated.
Anterior Compartment

Surgical Tips
- Hydrodissection

Best indications for vaginal mesh spanning ATFP bilaterally
- Narrow anterior vagina
- Do not place mesh under tension
- Anterior graft placement may be performed with USVVS colpopexy
Mesh Systems without Trocars

Pinnacle® Pelvic Floor Repair Kit

Sacrospinous Ligament

Arcus Tendineous

ELEVATE Kit

Capio® Suture Capturing Device
Indicated for
Uterine suspension +/- anterior prolapse repair or Apical suspension +/- anterior prolapse repair
Uphold—Anatomic and Subjective Outcomes

- N=115, variable follow-up
- Single center
- N=53 who underwent hysteropexy
- POPQ and validated questionnaires
- Failure defined as Aa, Ba, or C ≥ 0
- Recurrence rate of 2%, 1 apex recurrence
- Mesh exposure of 2.6 %
Uphold RCT and Pro Cohort

- PFDN trial SUPER-- Uphold vs TVH and USVVS
  - Patient blinded to hysterectomy
- VAULT—Uphold vs Dual mesh Minimally Invasive Sacrohysteropexy
Conclusion

A modified Mayo McCall culdeplasty or reattachment of the vaginal cuff to the uterosacral ligaments with closure of the pericervical ring is recommended with every hysterectomy independent of route.

Minimally invasive procedures for vaginal apex prolapse are successful but associated with various complications especially in inexperienced hands.

Do what is safest and most successful in your hands.
Video Clips

- USVVS Colpopexy