

ABDOMINAL SACROCOLPOPEXY USING BONE ANCHORS: A NEW AND IMPROVED ANCHORING TECHNIQUE

Synopsis of Video

Aims

To introduce and describe a new technique for abdominal sacrocolpopexy using bone anchors (Straight-In Infast®, American Medical Systems, Minneapolis, MN) secured into the sacrum. With the tremendous growth of the field of Female Urology/Urogynecology, both urologists and gynecologists have become increasingly involved in pelvic floor reconstruction. This video illustrates an excellent technique for vaginal vault suspension, of which urologists and gynecologists should be aware.

Methods

This video describes the technique of sacrocolpopexy using sacral bone anchors. A midline longitudinal incision is made, extending from the pubic bone to just below the umbilicus. The bowel is packed superiorly, and the sigmoid colon is retracted laterally to expose the posterior peritoneum. The right ureter is identified, and the peritoneum is incised over the sacrum to gently expose the anterior aspect of the sacrum. Two sites on the sacrum, approximately 1cm apart, are cleared for placement of the bone anchors. Because of the small size of the bone anchors, minimal dissection is necessary to expose the area necessary for safe bone anchor placement. This fact minimizes the risk of bleeding from the presacral veins that is often encountered with passage of large needles through the sacrum. A 6x10 piece of polypropylene mesh is sewn into a Y-configuration, and one arm of the mesh is secured to the anterior aspect of the vaginal apex and the other branch to the posterior vaginal wall with number-0 nylon stitches passed full thickness through the vaginal wall. A vaginal obturator is placed into the vagina to facilitate securing of the mesh to the vagina. The enterocele sac is obliterated by placing absorbable sutures from the peritoneum behind the posterior vagina to the posterior peritoneum overlying the rectum. With care taken to avoid any tension in the mesh, the doubled-over single arm of the mesh is secured to the sacrum using the prolene sutures that are preswedged to the bone anchors. The mesh is then retroperitonealized.

Results

This strong new technique of suspending the vaginal vault using bone anchors and synthetic graft material is introduced and described in detail in this video. The surgery follows traditional sacrocolpopexy technique, but with the use of bone anchors, minimal bleeding is encountered while a very solid point of fixation for the repair is provided. Follow up is ongoing to provide long-term results.

Conclusion

The Straight-In Infast® bone anchoring device provides an excellent secure method of anchoring the vaginal vault suspension. The technique requires minimal dissection on the surface of the sacrum, thereby curtailing the risk of bleeding associated with passing a large needle through the bone.