

ROBOTIC MESH SACROCOLPOPEXY

Introduction

This movie describes our experience with robotic mesh sacrocolpopexy for vault prolapse.

Design

We present our experience with robotic mesh sacrocolpopexy for the past 3 years and illustrate our technique in a 65-year old female with a very advanced degree of vault prolapse involving the vaginal apex and both anterior and posterior vaginal wall compartments.

Key technical points are:

- EEA clamp placed in the vagina at the start of the procedure and moved around by the assistant.
- To enhance visualization of the pelvis, the small and large intestines are retracted upwards and away from the pelvic cavity with an endo-paddle which is seen being deployed at the start of the procedure.
- Use of the prograsp instrument to hold the bladder peritoneum initially and then to gently retract the recto-sigmoid to the left, thereby enhancing the access to the promontory and right side of the pelvic cavity.
- Identification of the promontory facilitated by the tactile feedback of the suction tip manipulated from the assistant port.
- The mesh, which has been measured, trimmed and already secured with 2/0 Vicryl sutures on the back table, is introduced via the assistant port.
- Mesh fixation with absorbable sutures which incorporate strong bites into the vaginal wall and occasionally the levator muscles.
- Trick to hold the anterior mesh segment back with a small suture, which facilitates the view of the posterior mesh as it is anchored to the back wall of the vagina.
- Additional sutures can be placed at the vaginal apex to firmly secure the mesh to the apex of the vagina and to link the back and front portions together.
- Mesh is secured to the anterior vertebral ligament with 2/0 Ethibond non-absorbable sutures. Typically we use two sutures but occasionally we have used only one if the access is difficult or if there is concern about bleeding.
- To restore proper vaginal cuff support and avoid vaginal distortion, we do not place the mesh under tension but simply ensure that the mesh lays along the concavity of the sacrum in its prepared groove.
- Next the peritoneum is closed over the mesh with running absorbable sutures. This peritoneal closure ensures prevention of bowel adhesions to the mesh.
- Cystoscopy with administration of IV indigo carmine is performed to ensure no bladder or ureteric injuries.

Results

Early in our experience, 2 patients were converted to open. No bladder, ureteric, or rectal injuries have occurred. Two small vaginotomies were recognized intra-operatively and closed primarily, with the mesh attached away from the site of injury to reduce the risk of secondary mesh erosion. Immediate patient recovery has been excellent with the majority of patients being discharged home one to two days after the procedure.

Conclusion

Our experience with this procedure in 35 consecutive patients over the past three years demonstrated very good anatomical success based on the prolapse POP-Q classification system. No recurrence has been seen so far at a mean follow-up of 21 months (range 6-36).

<i>Specify source of funding or grant</i>	None
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Institutional Review Board at UT Southwestern
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes