311

Park J S[1], You H W[1], Sung H H[1], Lee Y[1], Lee K[1]
1. *Samsung Medical Center, South Korea*

ROBOT ASSISTED SACROHYSTEROPEXY IN PATIENTS WITH UTERINE PROLAPSE

Introduction

A common treatment option for uterine prolapse is hysterectomy; however, this procedure is associated with a high pelvic organ prolapse (POP) recurrence rate and invasiveness. Additionally there are a growing number of women who desire uterine preservation with symptomatic POP. Recently, treatment of apical prolapse has evolved with the advent of robotic surgery, which has enabled surgeons to perform this surgery with greater ease and feasibility. In those women who desire a uterine-sparing repair, robot-assisted sacrohysteropexy (RSH) may be an ideal option for minimally invasive surgery in select cases. However, there have been only a few reports about RSH to date. The aim of this study is to introduce our surgical technique.

Design

Brief surgical technique of RSH in our institution is following. Patients are placed in dorsal lithotomy with steep Trendelenburg position (30 degree). A pneumoperitoneum is created and five laparoscopic ports are placed in a W-figure (one 12 mm trocar for camera port above umbilicus, three 8 mm trocar for robotic arms, and one 12 mm trocar for assistant). A zero or 30 degree lens was used interchangeably. A peritoneal incision is made over the sacral promontory at the bifurcation of the aorta, and sacral dissection is performed until anterior longitudinal ligament is exposed. A vaginal retractor is used to push up the vaginal wall anteriorly, and then peritoneum of anterior utero-vesical junction was dissected. A peritoneal dissection between posterior uterus and vagina is made to perform peritoneal tunneling at the lateral level of broad ligament opening. Anterior mesh (4x5cm sized, non-absorbable polypropylene monofilament mesh, Gynemesh, Gynecare) is placed and sutured with upper vaginal tissue using non-absorbable materials (0 H-bond). T-shape mesh is placed on the posterior dissection plane, and both arms of the mesh were drawn through the peritoneal tunnel of broad ligament. Anterior and posterior meshes are combined with suture on the anterior side of uterus. In the case of small sized uterus, anterior mesh could be omitted and end of both arm of mesh can be sutured on anterior vaginal tissue. Tail of T-shape posterior mesh is fixed with anterior longitudinal ligament on the sacral promontory. Peritoneum was then re-approximated over the mesh with absorbable sutures.

Results

RSH were undergone in five patients with uterine prolapse. Mean age was 60.8 (43-70). Mean hospital stay after surgery was 3.0 (2-4) days. Overall success rate was 100% with mean follow-up duration of 3.7 (1.1-6.3) months. Mean estimated blood loss was 125 (50-250) ml and operative time from incision to closure, including docking time, was 234 (220-255) min. There was no complication during follow-up period.

Conclusion

RSH may offer promising results in terms of the restoration of vaginal anatomy and improved quality of life. In addition, RSH is feasible and safe method for uterine prolapse as a minimally invasive surgery. Robotic surgery for uterine prolapse may accelerate the learning curve of less experienced surgeons. However, further long-term data are still needed to assess the durability of this newer, minimally invasive approach to uterine prolapse repair.

References

1. Uterine preservation in pelvic organ prolapse using robot assisted laparoscopic sacrohysteropexy: quality of life and technique. Mourik SL, Martens JE, Aktas M. Eur J Obstet Gynecol Reprod Biol. 2012 Nov;165(1):122-7.
2. Robot-assisted sacrocolpopexy: description and video. Mitchell CR, Gettman M, Chow GK, Elliott D. J Endourol. 2012 Dec;26(12):1596-9.
3. Prospective evaluation of surgical outcomes of robot-assisted sacrocolpopexy and sacrocervicopexy for the management of apical pelvic support defects. Matthews CA, Carroll A, Hill A, Ramakrishnan V, Gill EJ. South Med J. 2012 May;105(5):274-8.

Disclosures

Funding: Nothing to disclosures **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective study very small number of patients A little modifided technique for pelvic organ prolapse repair surgery **Helsinki:** Yes **Informed Consent:** Yes