

AUTONOMOUS NERVE-PRESERVING SACROPEXY BY LAPAROSCOPICAL APPROACH

Introduction

Abdominal sacrocolpopexy is considered the gold standard for pelvic organ prolapse repair. However surgical interventions in the presacral space, an area containing many vascular and nervous pathways, may lead to various complications. After sacrocolpopexy, de novo bowel, urinary and sexual dysfunctions are described. These dysfunctions can be caused by injury of the autonomous nerves of the presacral space which supply the pelvic organs. The presacral space contains arterial and venous vessels, the superior hypogastric plexus (SHP), the hypogastric nerves (HN), and part of the inferior hypogastric plexus (IHP).

Design

We present nerve-preserving sacrocolpocervicopexy combined with supracervical hysterectomy using a laparoscopic approach in a thirtysix- year old woman. She suffered from symptoms of Pelvic Organ Prolapse (POP) and menorrhagia. The clinical examination revealed an ICS-POP-Q Stage III prolapse.

After the supracervical hysterectomy, the anterior and posterior walls of the cervix and the vagina were prepared. Next, the course of the Superior Hypogastric Plexus (SHP) through the peritoneal layer was identified. The peritoneum was incised longitudinally along the right common iliac vessels. The incision continued along the pelvic sidewall below the course of the right ureter, between the presacral and the rectovaginal spaces. Considering the course of the SHP and of the presacral vessels and after preserving them, the anterior longitudinal ligament was exposed above the promontory. The peritoneal incision along the pelvic sidewall was made carefully in order to visualize and protect the right hypogastric nerve (rHN) and the inferior hypogastric plexus (IHP). Two mesh arms were sutured to the anterior and the posterior wall of the vagina and cervix respectively and attached at the anterior longitudinal ligament above the promontory without tension. By closing the peritoneum the operation was finalized.

Results

The surgical technique presented in the video shows the identification and protection of the SHP during the sacrocolpopexy. This is an important surgical step to avoid potential disruption of the sympathetic innervations of the pelvic organs, followed by de-novo bowel, urinary and sexual dysfunctions. The video demonstrates the identification and preservation of the rHN and the IHP which is of equal importance.

Conclusion

Today, in an era when therapeutic interventions are increasingly assessed by the resulting quality of life, every effort should be made to minimize postoperative morbidity. Thus awareness of the autonomous nerves in the presacral space and along the pelvic sidewall may significantly improve the functional outcome of sacrocolpopexy.

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