



LAPAROSCOPIC BILATERAL INGUINAL HERNIA REPAIR WITH VASECTOMY

General Surgery

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ABSTRACT

A 36-year-old man undergoing bilateral laparoscopic hernia repair requested vasectomy for family planning purposes. Bilateral vasectomy was done by a laparoscopic approach at the time of trans-abdominal pre peritoneal hernia repair, and a separate scrotal incision was avoided. In addition to reporting a case of laparoscopic Hernia repair with vasectomy, we review the published literature on this topic.

KEYWORDS

CASE PRESENTATION

A 36-year-old man with bilateral inguinal hernias also desired to have vasectomy for contraception. After informed medical consent was obtained, with the patient under general anesthesia, a 2-cm transverse incision was made just 5 cm above the umbilicus. Pneumoperitoneum was created with co2 after insertion of 12 mm port through that incision. another 5 mm port were inserted 5 cm laterally at the level of umbilicus. After identifying indirect defect bilaterally retraction of the peritoneal fold above and below and cord structure was identified bilaterally.

Following identification of the spermatic cord at the right inguinal ring, the right vas deferens was dissected free off the cord and double clipped at both ends, and approximately 2 cm of the vas was excised. A similar procedure was performed on the left side. The excised fragments were confirmed as vas deferens by histopathology examination. Following vasectomy, hernia repair was performed, by pre-peritoneal mesh placement.¹

DISCUSSION

Laparoscopic hernia repair is being increasingly done since it was first described in 1990.² MacFadyen and Mathis³ compared the outcomes of 3288 inguinal herniorrhaphies with 3178 laparoscopic inguinal hernia repairs and demonstrated that the complication and recurrence rates were similar. We found four reports of synchronous laparoscopic vasectomy and hernia repair⁴⁻⁷ with three of the four patients undergoing vasectomy by an intraperitoneal approach.

Bilateral vasectomy at the time of laparoscopic hernia repair is an attractive option for some patients. It avoids an additional scrotal incision and associated complications, which occur in 1%–6% of patients.⁸ Although chronic complications following vasectomy are rare, sperm granuloma at the vasectomy site may cause protracted pain and discomfort. Schmidt⁹ described 154 cases of sperm granuloma, 83 of which were symptomatic, and suggested that pain may be secondary to entrapment of nerves within the granuloma. This hypothesis is supported by the data of Ahmed and associates,¹⁰ who evaluated the effectiveness of nerve stripping in relieving pain after vasectomy. Of 17 patients who underwent denervation, 13 reported complete relief of pain, and the other 4 had a significant improvement. Because the vas deferens diverges from the cord structures at the internal ring, it is conceivable that laparoscopic vasectomy may result in fewer symptomatic sperm granulomas. However, a larger cohort of patients is needed to confirm this hypothesis.

A major limitation of laparoscopic vasectomy is the potential difficulty of reversal. Inguinal vasovasostomy has a success rate similar to that of scrotal vasovasostomy.¹¹ There are no reported cases of retroperitoneal vasovasostomy. Because there is currently no technology to reconstruct the retroperitoneal pelvic vas deferens, the patient should be counseled that laparoscopic vasectomy is irreversible.

Most vasectomies are currently performed under local anesthesia by

scrotal incisions. However, some patients undergo vasectomy under general anesthesia, either by choice or for other reasons such as difficult scrotal anatomy. A laparoscopic vasectomy may be an option for patients undergoing vasectomy under general anesthesia. As described in our case, laparoscopic vasectomy is an excellent option for a patient wishing to undergo vasectomy at the time of other laparoscopic procedures.

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