



EXTRACORPOROEL ROBOTIC ASSISTED BILATERAL VASOVASOSTOMY, AFTER A SUCCESSFUL BILATERAL VASECTOMY

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Video of this article can be accessed at www.robotictimes.org

INTRODUCTION

Vasectomy is an effective method of permanent male surgical sterilisation. Proximal vas obstruction after vasectomy requires microsurgical vasectomy reversal. Vasovasostomy is also required in other cases of proximal vasal obstructions (e.g., iatrogenic, post-traumatic, or post-inflammatory). Published success rates reach 90%, depending on the time between vasectomy and re-fertilisation, type of vasectomy, type of reversal, and whether reversal was unilateral or bilateral.

We present a case of robotically assisted bilateral vasovasostomy, in a 36 year old man, that underwent successful bilateral vasectomy 13 years ago.

METHODS

Patient Details and Description of Surgical Technique

The preoperative ultrasound was unremarkable. Initially, a 3 cm long incision in the former incision area was performed. The Dartos fascia was incised and the right testicle was freed from its attachments

inside the scrotum. The isolated by palpation vas deferens was prepared and undermined with a vessel loop. A 2 cm long stenosis was recognized just distally to the vasectomy location. Resection and removal of the stenotic part was then performed. The remaining proximal and distal edges of vas deferens were spatulated. The patency of vas deferens lumen was proved with a vessel canula, which was inserted carefully into the lumen. The distal and proximal ends were flushed with NaCl saline and the patency was proven.

Then, a 3 arm DaVinci Robot was docked and a successful robotically assisted end-to-end anastomosis of the vas deferens was performed using 5 mm fine needle holders. The anastomosis was performed in two layers (Musculo-mucosa, Adventitia) with a PDS 7/0 suture.

After meticulous coagulation, the testicle was placed back into the scrotum and the Dartos fascia, as well as the scrotal skin, was sutured with a Safil 1x0 suture. The same procedure is performed to the contralateral site.

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FOLLOW-UP

The patient was discharged the next day with a scrotal supporter. The postoperative period was uneventful. He returned to work in the 3rd postoperative day. A semen analysis was performed 2 months postoperatively, showing oligozoospermia (11 million/mL), but adequate spermatozoa mobility (40%) and no teratozoospermia.

As conclusion, robotically assisted vasovasostomy can be an effective technique of vasectomy reversal, offering improved vision and movement precision during the vas deferens anastomosis.