

SURGEONS CORNER

## Techniques of Ectopic Reservoir Placement and Their Pitfalls



Nannan Thirumavalavan, MD,<sup>1</sup> Martin S. Gross, MD,<sup>2</sup> and Ricardo Munarriz, MD<sup>3</sup>

### ABSTRACT

**Background:** Ectopic placement of penile prosthesis reservoirs has become more common in patients whose space of Retzius has been compromised.

**Aim:** To describe techniques and instruments used to place penile prosthesis reservoirs ectopically.

**Methods:** We present our method of placing ectopic reservoirs and review the literature for other techniques. We also catalog the instruments used for this purpose.

**Outcomes:** Similar to traditional reservoir placement, successful ectopic reservoir implantation requires good cosmetic and functional success and low complication rates.

**Results:** Ectopic reservoir placement has been shown to be effective, to safely avoid bowel, bladder, and vascular injury, and to maintain excellent function and cosmesis. Multiple tools for ectopic placement have been described, but no data exist comparing their effectiveness and complications. Examples include dissection of the space anterior to the transversalis muscle using the surgeon's finger, a pediatric Yankauer suction tip, or a Foerster lung clamp. Instruments described to grasp and advance the reservoir include a sponge stick, a Foerster lung clamp, and the ectopic reservoir insertion tool (Sontec, Centennial, CO, USA). The effect of different instruments on the integrity of reservoir has not been extensively studied.

**Clinical Implications:** Attention to technique and the instruments used to dissect the ectopic space and grasp the reservoir are crucial to successful ectopic reservoir placement.

**Strengths and Limitations:** Reports of vascular, bowel, or bladder injuries during ectopic placement are exceedingly rare, as are reports of injury to reservoirs caused by traumatic grasping. However, no methods or tools have been compared in head-to-head trials.

**Conclusion:** Ectopic placement is safe and effective, but differences between methods and instruments have not been delineated. **Thirumavalavan N, Gross MS, Munarriz R. Techniques of Ectopic Reservoir Placement and Their Pitfalls. J Sex Med 2017;14:1451–1454.**

Copyright © 2017, International Society for Sexual Medicine. Published by Elsevier Inc. All rights reserved.

**Key Words:** Ectopic Placement; Penile Prosthesis; Reservoir; Penile Prosthesis Malfunction; Replacement; Removal

### INTRODUCTION

Placement of penile prosthetic reservoirs in the space of Retzius has historically been the standard of care. In recent years, attention in the literature has focused on placement of reservoirs in alternative locations in patients whose space of Retzius has been compromised.<sup>1–3</sup> Ectopic reservoir placement has been

shown to effectively and safely avoid bowel, bladder, and vascular injury and maintain excellent function and cosmesis.<sup>4</sup>

### INDICATIONS FOR PROCEDURE

Ectopic placement has become more important since the advent of robot-assisted laparoscopic prostatectomies and cystectomies. Ectopic placement of reservoirs should be performed in all patients with a history of surgical procedures obliterating the space of Retzius. In cases in which traditional placement of reservoirs has been attempted despite a history of robotic surgery, reservoirs have been found intraperitoneally.<sup>5,6</sup>

### PREOPERATIVE PREPARATION

The preoperative preparation for those patients receiving an ectopically placed reservoir does not differ from that for those

Received May 17, 2017. Accepted September 16, 2017.

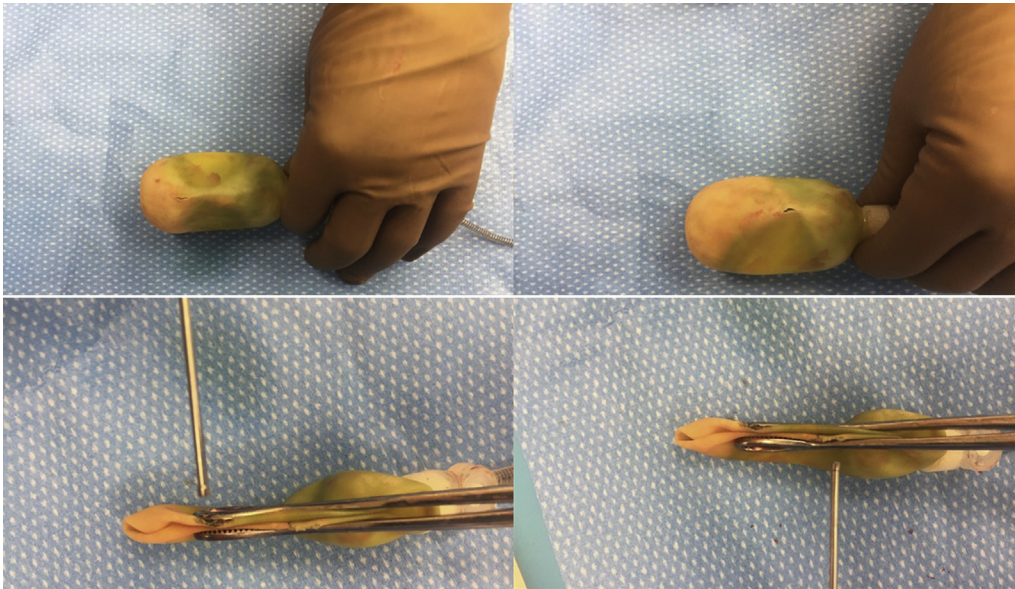
<sup>1</sup>Scott Department of Urology, Baylor College of Medicine, Houston, TX, USA;

<sup>2</sup>Section of Urology, Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA;

<sup>3</sup>Department of Urology, Boston Medical Center, Boston, MA, USA

Copyright © 2017, International Society for Sexual Medicine. Published by Elsevier Inc. All rights reserved.

<https://doi.org/10.1016/j.jsxm.2017.09.011>



**Figure 1.** An ectopically placed reservoir with defects discovered at explanation for prosthesis malfunction. The defect locations were concerning for damage from being grasped with a sponge stick. Figure 1 is available in color online at [www.jsm.jsexmed.org](http://www.jsm.jsexmed.org).

undergoing traditional placement. A thorough physical examination should be performed, including a careful examination for surgical scars in the abdominal and inguinal area because laparoscopic incisions can be hidden in skin folds or hair-bearing areas. At our institution, all patients are examined 1 to 2 weeks before surgery. They are re-examined in the preoperative area to ensure no fungal rashes or skin lesions are present that could predispose a patient to infection and require procedure cancellation.

During the preoperative timeout (before anesthesia is induced), the antibiotic regimen is once again reviewed. In addition, we reiterate the patient's surgical history and verbalize that the patient will undergo ectopic reservoir placement. We find this important to prevent inadvertent attempts of placement into the space of Retzius.

### INTRAOPERATIVE CONSIDERATIONS

When the time comes to develop the space for a reservoir, care should be taken to confirm that the bladder is empty—this should be done for traditional and ectopic placements. Subsequently, a retractor is used to lift the incision superiorly. Finger dissection is used to peel fibers superiorly off of the pubic bone toward the external inguinal ring. Once this is done, before piercing the transversalis fascia, the index finger is turned cephalad to dissect a space for the reservoir. At our institution, we use a sponge stick to advance the reservoir only if finger advancement is not sufficient. The reservoir should be filled with saline and palpated to ensure no herniation.

The increasing prevalence of ectopic reservoir placement has resulted in the use of different surgical instruments (eg, sponge stick, ring forceps, Yankauer suction tip, etc) to facilitate

placement.<sup>7,8</sup> These instruments were not designed specifically for this purpose and thus could damage the reservoirs during placement. In our experience, a recent removal of an implant for malfunction showed damage to the reservoir concerning for trauma from the sponge stick (Figure 1). If a device cannot be used to safely place reservoirs ectopically, then a counterincision should be considered.

### POSTOPERATIVE MANAGEMENT AND FOLLOW-UP

Postoperative management does not deviate from our standard penile prosthesis protocol. All patients have a Foley catheter and a Jackson Pratt drain left for overnight bulb suction. Patients are kept on intravenous antibiotics for 24 hours postoperatively. The Foley catheter and drain are removed in the morning of postoperative day 1, and patients are usually discharged after voiding adequately and completing their intravenous antibiotics. They are sent home with sulfamethoxazole and trimethoprim for 1 week, pain medicine, and stool softeners, and are seen in clinic in 2 weeks for a postoperative check. Postoperatively, we encourage patients to gently pull inferiorly and anteriorly on the pump to ensure that it settles in an easily accessible position.

### OUTCOMES AND COMPLICATIONS

The evolution of reservoir placement was elegantly described by Perito and Wilson.<sup>7</sup> The first non-traditional reservoir placement was carried out by Schreiter who placed the reservoir in the peritoneum to avoid autoinflation. Subsequently, Mulcahy<sup>9</sup> described the placement of reservoirs in an extraperitoneal location. After the development of the reservoir lockout valve, Wilson et al<sup>1</sup> described “ectopic” placement of reservoirs that did not

Download English Version:

<https://daneshyari.com/en/article/8828982>

Download Persian Version:

<https://daneshyari.com/article/8828982>

[Daneshyari.com](https://daneshyari.com)