

# Robot-assisted excision of seminal vesicle cyst associated with ipsilateral renal agenesis

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## **Summary**

Seminal vesicle cysts (SVCs) associated with other genitourologic abnormalities are rare. Often associated with ipsilateral renal agenesis in a symptomatic patient. In symptomatic patients open surgical excision is the treatment of choice. The laparoscopic approach is a less invasive option. Recently robot-assisted management has gained a primary role for the treatment of this condition.

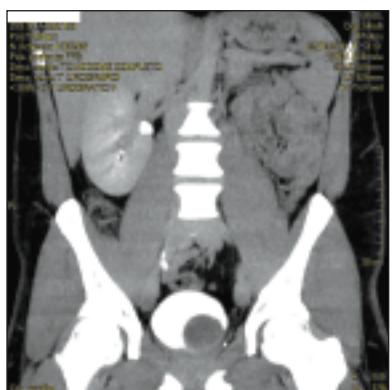
**KEY WORDS:** Seminal vesicle cyst; Robotic surgery; Genitourologic abnormalities.

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## **INTRODUCTION**

Seminal vesicle cysts (SVCs) are rare lesions that can be either congenital or acquired (1).

The majority remain asymptomatic. However, those cysts could become symptomatic and usually require surgical management. Open surgery (3-4-5) is the gold standard of treatments with good results; surgical experiences are reported since 1914 by Zinner (7); however associated with significant morbidity, such as rectal and bladder wall injuries, ureteral injury, and also possible erectile dysfunction due to neurovascular bundle damage. Seldom are reported pelvic urinomas. In the last decade the a laparoscopic treatment (4-5-6) allows a less invasive route, with reduced morbidity, and hospitalization. The robotic surgery offers a more feasible treatment due to the more accurate dissection and 3D visualization. Moore et al. in July 2007 described the first robot-assisted excision of a SVC.



## **MATERIALS AND METHODS**

The clinical presentation may have a wide range of symptoms, such as perineal pain, emptying phase symptoms and intermittent haemospermia, epididymitis; the physical examination may be negative and in some cases the rectal exam reveal a cystic mass in the area of seminal vesicles.

Transrectal or abdominal ultrasonography, CT scan and MRI (Figures 1-1a-2-2a) are the diagnostic tools indicated for the diagnosis; seldom vesiculography and semen analysis may be useful in cases with ejaculatory duct obstruction. Uroflusometry may show obstruction and endoscopic view can show bulging of the bladder wall with dislocation of the ureteric virtual orifice, in cases with large cysts.

## **ROBOTIC TECHNIQUE**

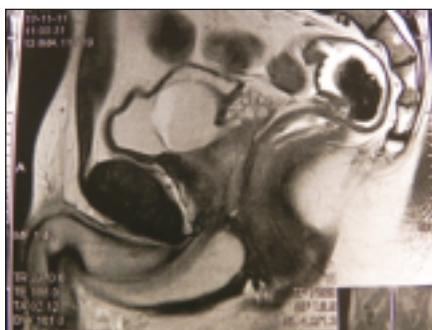
A standard transperitoneal approach could be carried with six trocars in “W” configuration if a four arms robot is used, but four or five access are also described. Moderate Trendelenburg position was obtained. The bladder was drained with a Foley catheter. The posterior surface of the bladder was approached by transverse peritoneal incision between the bladder and the rectum and a cleavage plane was developed. Left vas deferens, seminal vesicle and cyst were identified (Figures 3-3a). Then the cyst was gently dissected from the bladder wall, resected and the communication with the seminal vesicle closed with 4/0 absorbable suture (Figures 4-4a). The peritoneal layers were sutured and no drain was left.

No complications were observed. Foley catheter was removed on day one.

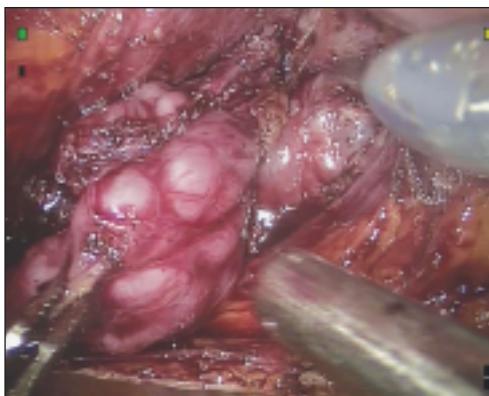
Postoperative hospital stay was two days. After one year follow-up total relief of symptoms without complications was shown.

CT scan and postoperative flowmetry showed normal findings.

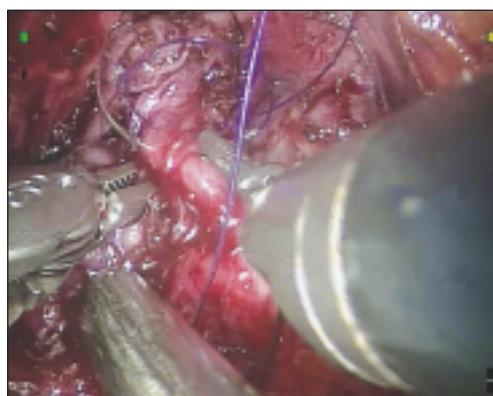
**Figures 1, 1a.**  
CT scan.



**Figures 2, 2a.**  
RM.



**Figures 3, 3a.**  
Left SVC.



**Figures 4, 4a.**  
Suture of surgical field.

## CONCLUSIONS

SVCs associated with ipsilateral renal agenesis are rare but they should be considered in men with otherwise inexplicable voiding symptoms, perineal discomfort or other genitourinary complaint of unclear etiology. Laparoscopic-robot-assisted procedure provides excellent intraoperative access and visualization with absence of postoperative morbidity. It is likely to become the treatment of choice for this rare developmental anomaly. Obviously in centers with a high volume surgery, performed by experienced surgeons.

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