
Seminal vesicle phyllodes tumour treated by transperitoneal laparoscopic resection

Edward CG Tudor, Mark L Cutress and S Alan McNeill

Journal of Clinical Urology 2014 7: 361 originally published online 26 September 2013

DOI: 10.1177/2051415813507255

The online version of this article can be found at:

<http://uro.sagepub.com/content/7/5/361>

Published by:



<http://www.sagepublications.com>

On behalf of:



THE BRITISH ASSOCIATION
OF UROLOGICAL SURGEONS

[British Association of Urological Surgeons](#)

Additional services and information for *Journal of Clinical Urology* can be found at:

Email Alerts: <http://uro.sagepub.com/cgi/alerts>

Subscriptions: <http://uro.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

>> [Version of Record](#) - Sep 1, 2014

[OnlineFirst Version of Record](#) - Sep 26, 2013

[What is This?](#)

Seminal vesicle phyllodes tumour treated by transperitoneal laparoscopic resection

Journal of Clinical Urology
2014, Vol. 7(5) 361–363
© British Association of
Urological Surgeons 2013
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/2051415813507255
uro.sagepub.com
SAGE

Edward CG Tudor, Mark L Cutress and S Alan McNeill

Introduction

Primary seminal vesicle tumours are extremely rare, with only 69 cases reported.¹ Consequently there is a paucity of literature on these tumours relating to presentation, diagnosis, management and overall prognosis. We report the case of one such rare tumour, a primary low-grade epithelial stromal tumour, or phyllodes tumour, of the seminal vesicle, occurring in a young man presenting with haematospermia.

Case report

A 35-year-old man presented to his general practitioner exclusively with haematospermia. There were no other associated genitourinary symptoms (including perineal itch/discomfort), and he gave no history of altered bowel habit. He was a non-smoker and otherwise had no medical comorbidity. On examination, there were no abdominal masses palpable, and a digital rectal examination (DRE) revealed a clinically normal prostate.

Flexible cystoscopy revealed a normal-looking urethra and bladder urothelium. There was, however, the impression of an extrinsic lesion impinging on the left base of the bladder. Transabdominal ultrasound assessment of the urological tract was normal, but a transrectal ultrasound scan showed a solid, heterogeneous mass arising from the left seminal vesicle, abutting the prostate (Figure 1). This was further characterised by a magnetic resonance imaging (MRI) scan, showing the mass to have a diameter of 5 cm, and consist of mixed solid and cystic structure (Figure 2). Radiologically, the differential diagnosis included seminal vesicle phyllodes tumour, mesenchymal sarcoma or cyst adenoma.

The diagnosis was confirmed via ultrasound-guided transrectal biopsies of the mass, which revealed mixed epithelial and stromal tissue. No mitotic activity was seen. On immunohistochemistry, the stroma stained positive for smooth muscle actin and CD34. The epithelial component was negative for prostate-specific antigen (PSA) and Prostatic Acid

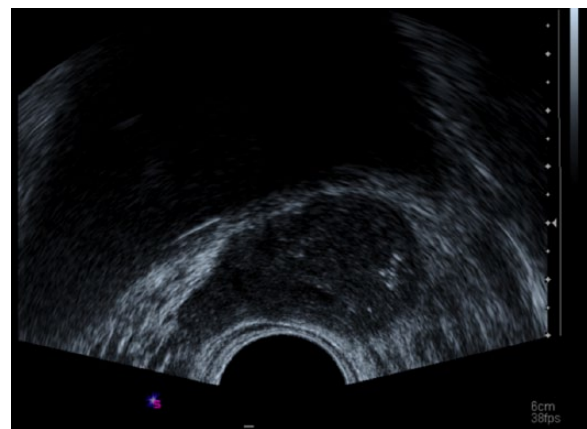


Figure 1. Transrectal ultrasound scan demonstrating solid heterogeneous mass arising from the left seminal vesicle.

Phosphatase (PrAP), suggesting the mass was extremely unlikely to be of prostatic origin.

The patient underwent definitive treatment with transperitoneal laparoscopic excision of the tumour. This operative approach was selected to enable adequate visualisation and dissection of the seminal vesicles not afforded by an extra-peritoneal approach. Pneumoperitoneum was created using the Hassan technique, placed through an infraumbilical incision. Three further 5 mm ports and one 10 mm port were placed in the lower abdomen between the umbilicus and anterior superior iliac spines. The left vas deferens was identified and followed with dissection in the rectovesical

Department of Urology, Western General Hospital, UK

Corresponding author:

Edward C. G. Tudor, Department of Urology, Western General Hospital, Crewe Road South, Edinburgh, EH4 2XU, UK.
Email: ecgt@doctors.org.uk

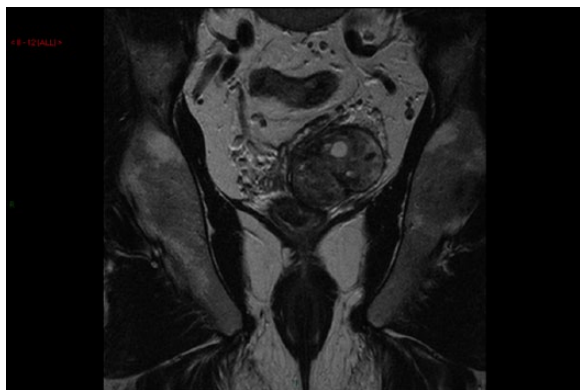


Figure 2. Coronal section of pelvis illustrating replacement of left seminal vesicle with heterogenous tumour, with posterior bladder neck and prostatic urethra visible inferiorly.



Figure 3. Coronal pelvic MRI scan demonstrating an area of low signal intensity at the site of the resected left seminal vesicle, representing postoperative fibrosis. There is no evidence of tumour recurrence.

pouch, which allowed access to the tumour arising from the left seminal vesicle. The seminal vesicle was mobilised and excised with the associated tumour. Care was taken to preserve the neurovascular bundle adjacent to the prostate. There were no operative or post-operative complications.

Definitive histological analysis reflected that of the preliminary transrectal biopsies: The tumour was a low-grade epithelial stromal tumour of the left seminal vesicle (measuring $56 \times 40 \times 25$ mm). Microscopically, this was a biphasic tumour, with glandular elements, lined by cuboidal epithelium, and abundant stromal elements. Again, there were no mitotic figures. The tumour was delineated from the normal seminal vesicles.

The patient made an excellent recovery and was discharged from inpatient care three days post-operatively. At his routine clinical and radiological review at four months, he was clinically well, with no evidence of recurrent or metastatic disease. Follow-up MRI scans at six and 12 months showed no tumour recurrence (Figure 3). Importantly, he has reported no symptoms of erectile dysfunction, which

may be because of the precise anatomical approach undertaken during his surgery with preservation of the neurovascular bundle. However, both our patient's young age and the unilateral nature of the surgery may contribute to preservation of erectile function.

Discussion

Phyllodes tumours, otherwise known as epithelial stromal tumours, are a common cause of breast disease.² They occur only very rarely as primary seminal vesicle tumours. Baschinsky et al. classified primary seminal vesicle tumours into three broad groups.³ Briefly, these include: adenocarcinoma, the commonest type of primary seminal vesicle tumour; primary mesenchymal tumours, including leiomyoma, leiomyosarcoma and fibrosarcoma; and finally, as in this case, mixed epithelial and stromal tumours.

Given the paucity of literature on the subject, it is perhaps unsurprising that the mixed epithelial and stromal tumours are often reported under different names. These descriptions include phyllodes, cystomyoma, cystadenoma, cystic epithelial-stromal tumour, Mullerian adenosarcoma-like tumour and cystosarcoma phyllodes.

Various types of surgical treatment have been recorded, but complete excision of the tumour has been advocated in all cases. There have been two prior cases of laparoscopic resection of seminal vesicle tumours, both of which were intraperitoneal, or transperitoneal, resections,^{4,5} and similar in technique to our patient's operation. The first reported case of a patient with a similar tumour was in 1944,⁶ occurring in a 66-year-old presenting with an abdominal mass. In 1998, Baschinsky compiled a review of 10 cases.³ There are nine further reported cases, including this case (Table 1). The prognosis is generally good; one group followed their patient for 25 years, with no evidence of tumour recurrence.⁷ However, such tumours have variable prognoses, as lung metastases have been reported at intervals of seven months to four years following initial resection.^{8,9} The variance in outcomes of small groups of patients with such very rare conditions underscores the importance of regular patient follow-up and continued tumour surveillance, as ultimate long-term outcomes cannot be confidently predicted in individual cases.

Haematospermia, as a presenting complaint, is often benign. Many patients can be reassured and managed conservatively if a thorough history and examination fail to reveal any obvious pathology. There are no formal guidelines regarding management of patients with haematospermia. A systematic review by Kumar et al.¹⁵ recommends investigations including urinalysis, semen analysis, coagulation screen, sexually transmitted diseases screen and PSA (if the patient has an abnormal DRE or is in his late 40s). Further imaging is at the discretion of the clinician following assessment. In our case, transrectal ultrasound scanning did reveal pathology but it may well have failed to detect

Table 1. Summary of cases of epithelial-stromal tumours of the seminal vesicle since 1998.

Study	Patient age	Features	Treatment	Outcome
Abe et al. 2002 ⁹	65	Hesitancy, frequency, constipation	Lower midline laparotomy, excision of tumour	Died 11 months after surgery (lung metastases)
Gil et al. 2003 ¹⁰	45	Asymptomatic (incidental finding on routine ultrasound scan for liver disease)	Midline laparotomy, excision of tumour	Alive at three years
Son et al. 2004 ¹¹	39	Urinary retention	Laparotomy, excision of tumour	Alive at one year
Hoshi et al. 2006 ¹²	70	Bladder outflow obstruction	Open radical cystoprostatectomy	Alive at 14 months
Khan et al. 2007 ⁵	43	Haemospermia	Trans-peritoneal laparoscopic excision of tumour and seminal vesicle	Alive at one year
Monica et al. 2008 ¹³	50	Dysuria, fever, poor urinary stream	Laparotomy, excision of tumour	Alive at 26 months
Soares et al. 2010 ¹⁴	65	Asymptomatic (incidental finding on transrectal ultrasound scanning)	Infraumbilical midline laparotomy, excision of tumour	Alive at one year
Xu et al. 2010 ¹	59	Lower abdominal discomfort, bladder outflow obstruction	Transvesical approach, excision of tumour	Alive at 22 months
Current study	35	Haemospermia	Pre-peritoneal laparoscopic excision of the tumour	Alive at seven months

pathology. We recommend both transrectal and abdominal ultrasound scanning of the urological tract if the haemospermia is persistent and associated with other symptoms.

Conclusion

We have reported a primary epithelial stromal, or phyllodes, tumour of the seminal vesicle, presenting as haemospermia, and described the successful resection of such a tumour via laparoscopic trans-peritoneal retropubic resection.

These are very rare tumours, and this case adds to the growing body of evidence for surgical resection, and the suitability for transperitoneal retropubic surgical approach. Post-surgical prognosis of such tumours generally appears good, with only two cases of secondary pulmonary metastases previously reported.

Conflict of interest

None declared.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

- Xu LW, Wu HY, Yu LY, et al. Large phyllodes tumour of the seminal vesicle: Case report and literature review. *J Int Med Res* 2010; 38: 1861–1867.
- Pietska M and Barnes L. Cystosarcoma phyllodes. A clinicopathologic analysis of 42 cases. *Cancer* 1978; 41: 1974–1983.
- Baschinsky DY, Niemann TH, Maximo CB, et al. Seminal vesicle cystadenoma: A case report and literature review. *Urology* 1998; 51: 840–845.
- Lallemant B, Busard P, Leduc F, et al. Laparoscopic resection of a leiomyoma of the seminal vesicle. *Indian J Urol* 2007; 23: 70–71.
- Khan MS, Zaheer LU, Ahmed K, et al. Low-grade phyllodes tumor of the seminal vesicle treated with laparoscopic excision. *Nat Clin Prac Urol* 2007; 4: 395–400.
- Plaut A and Standard S. Cystomyoma of seminal vesicle. *Ann Surg* 1944; 119: 253–261.
- Soule EH and Dockerty MB. Cystadenoma of the seminal vesicle, a pathological curiosity: Report of a case and review of the literature concerning benign tumours of the seminal vesicle. *Proc Staff Meet Mayo Clin* 1951; 26: 406–414.
- Fain JS, Cosnow I, King BF, et al. Cystosarcoma phyllodes of the seminal vesicle. *Cancer* 1993; 71: 2055–2061.
- Abe H, Nishimura T, Miura T, et al. Cystosarcoma phyllodes of the seminal vesicle. *Int J Urol* 2002; 9: 599–601.
- Gil AO, Yamakami LY and Genzini T. Cystadenoma of the seminal vesicle. *Int Braz J Urol* 2003; 29: 434–436.
- Son HJ, Jeong YJ, Kim JH, et al. Phyllodes tumor of the seminal vesicle: Case report and literature review. *Path Int* 2004; 54: 924–929.
- Hoshi A, Nakamura E, Higashi S, et al. Epithelial stromal tumor of the seminal vesicle. *Int J Urol* 2006; 13: 640–642.
- Monica B, Larosa M, Facchini F, et al. Low grade epithelial stromal tumour of the seminal vesicle. *World J Surg Oncol* 2008; 6: 101.
- Soares RO, Correia TP, Cardoso A, et al. Phyllodes tumour of the seminal vesicle: Case report and revision of literature [in Spanish]. *Actas Urol Esp* 2010; 34: 646–647.
- Kumar P, Kapoor S and Nargund V. Haemospermia – a systematic review. *Ann R Coll Surg Engl* 2006; 88: 339–342.