Case Study of the Month

Seminal Vesicle Cystadenoma: A Rare Clinical Perspective

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1. Case report

A 52-yr-old man presented with severe obstructive urinary symptoms. Ten years earlier, a digital rectal examination disclosed a small mass above the prostate, and a computed tomography (CT) scan showed a 3.5-cm cystic tumor of the right seminal vesicle. He had been followed conservatively elsewhere. Reevaluation of the mass with a CT scan and magnetic resonance imaging showed that the mass had grown to a maximal diameter of 14 cm. A transabdominal needle biopsy revealed benign fibromuscular tissue. The tumor was then resected by an open transvesical approach. Pathology was consistent with a benign seminal vesicle cystadenoma. The natural history, pathology, and surgical approach are described.

1.1. Surgical procedure

Due to the large size of the tumor an open transvesical approach was elected. A midline extraperitoneal suprapubic incision was made up to the umbilicus. The anterior wall of the bladder was opened longitudinally just above the bladder neck and continued through the posterior bladder wall down to the trigone. The two halves of the bladder were retracted laterally, enabling full exposure of the seminal vesicle tumor without damaging the nerves and blood supply of the bladder. Ureteral catheters were inserted for a better identification of the ureters during the excision of the tumor. The ampulla of the right vas was ligated. The mass was dissected and totally removed (Fig. 3). A transabdominal ultrasound guided needle biopsy revealed both epithelial and stromal elements. The patient was referred for surgical excision of the tumor.
was placed. Postoperative course was uneventful. Nine months after surgery the patient has neither voiding symptoms nor sexual dysfunction. A CT of the abdomen and pelvis showed no evidence of tumor recurrence. The bladder and left seminal vesicles are normal (Fig. 4).

1.2. Pathology

Macroscopically, the tumor consisted of a well-circumscribed, multilobulated mass containing a large amount of bloody fluid. Histology revealed multiple glands and cysts of varying sizes and shapes containing eosinophilic material, with no malignant features. The stromal component was abundant. These microscopic findings are consistent with cystic epithelial stromal tumor (Fig. 5).

2. Discussion

Tumors of the seminal vesicles may be primary tumors or secondary spread from adjacent organs such as the bladder, prostate, rectum, or lymphoma. Primary seminal vesicle tumors are rare and may be benign (papillary adenoma, cystadenoma, hydatid cyst, and amyloid deposition) or malignant (adenocarcinoma, sarcoma, cystosarcoma phylloides, primary seminoma, and carcinoid).
Only 14 cases of cystadenoma of the seminal vesicle have been reported in the English literature since 1944. Patient age ranged from 37 to 66 yr. In some cases it was an incidental finding of an asymptomatic mass [1–3]; others were diagnosed following hematuria [4], obstructive urinary symptoms [5,6], and other nonspecific symptoms. Preoperative needle biopsy had been often inconclusive [6]. All patients were treated soon after the diagnosis. All tumors were resected by an open operation [2,3,6,7]. Various surgical techniques have been described, including transperineal, transvesical, paravesical, retrovesical, and transcoccygeal approaches. In one case, radical cystoprostatectomy, low anterior resection of the rectum, and orthotopic neobladder reconstruction were done [6]. The postoperative follow-up ranged from 5 mo to 35 yr, and in all cases but one [5], there was no evidence of recurrence.

The present case is unique. Because the patient was asymptomatic at the time of diagnosis and a needle biopsy showed benign tissue, he had been followed for 10 yr. Such a conservative approach may be considered reasonable [8]; however, the tumor had grown 5-fold in volume and became symptomatic. At this stage the surgical removal of the mass became much more difficult. We believe that the best surgical approach to such a large seminal vesicle mass is transvesical. Splitting the bladder in the midline and retraction of the two halves laterally enables full exposure and complete excision of the tumor with minimal risk of damage to the rectum [8] and the bladder nerves. Notably, bleeding and ureteral injury are more prone to occur when compared with the transperineal approach [8]. Although pathologic examination of the tumor showed a benign cystadenoma and confirmed the diagnosis of the needle biopsies, to date there are not enough data to support a conservative approach to a seminal vesicle tumor based on needle biopsies. Because a cystic tumor of the seminal vesicle may be malignant or it may grow and become more difficult to excise, it is advisable to remove the tumor as soon as possible, even if it is asymptomatic.

**Conflicts of interest:** The authors have nothing to disclose.

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**Question:**
Which of the following complications is less likely to occur during an open transvesical resection of a seminal vesicle mass compared with a perineal approach?

A. Bleeding
B. Ureteral injury
C. Rectal laceration
D. All of the above
References