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Case Report

Primary Adenocarcinoma in a Seminal Vesicular Cyst: A Case Report

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Abstract

Introduction: Primary adenocarcinoma of the seminal vesicle (SVC) is very rare.

Presentation to the case: Herein, we reported a case of SVA of SV cyst arising in a 51-year-old deaf mute male patient. Laboratory parameters including serum prostate specific antigen (PSA) level were normal. Contrast-enhanced magnetic resonance imaging demonstrated large reterovesical cystic lesion with mural nodules. The patient was managed by radical prostatectomy and seminovesiculolectomy. Microscopic examination revealed well-differentiated primary mucinous adenocarcinoma of left seminal vesicle cyst.

Conclusion: To the best of our knowledge, this was the first case of SVA of SV cyst arising in deaf mute patient.

Keywords: Renal cell carcinoma; Sarcomatoid; Cutaneous metastasis

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Consent: We confirm that the patient has given the informed consent for the case report to be published.

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Introduction

Primary adenocarcinoma of the seminal vesicle (SVC) is very rare. Since the first case was cited by Guelliot in 1883, less than 100 cases were reported worldwide [1]. Determining whether the origin of the primary tumor is from the seminal vesicle (SV) or from neighboring organs as prostate is a major challenge [2]

Seminal vesicle cysts are rare lesions that can be either congenital or acquired [3]. In, 1992, Okada et al. have reported a case of papillary adenocarcinoma in a seminal vesicle cyst associated with ipsilateral renal agenesis [4]. Herein, we reported a case of SVA of SV cyst arising in a deaf mute male patient. This was the first reported case of SVC at Mansoura Urology and Nephrology Center, Mansoura University, Egypt.

Case report

A deaf, mute 51–year–old man was presented by irritative and obstructive lower urinary tract symptoms since 5 monthes. General examination revealed left lion dullness. Digital rectal examination revealed a large cystic mass in the area of the left seminal vesicle with small hard nodule at left prostatic lobe. Laboratory parameters including serum prostate specific antigen (PSA) level were normal. Contrast–enhanced magnetic resonance imaging was performed, which demonstrated a large retro–vesical cystic lesion (10x8x8 cm) displaying high SI at T1 and intermediate SI at T2 with mural nodules in seen at the dome and left lateral wall after contrast administration. The lesion shows marginal enhancement with minimally enhancement at the mural nodule. The cyst is displaying the bladder anteriorly (Figure 1 A, B, C). The prostate is of average size with small cyst related to the left lateral aspect of the prostate, postero–lateral to the large cyst with no mural nodule but only some fluid content. The patient underwent transrectal core biopsy, which histologically showed only fibromuscular stroma with no evidence of prostastic acini. No bladder tumours were found on cystoscopy. Primary rectal tumor was ruled out by colonoscopy. The patient was managed by radical prostatectomy and seminovesiculolectomy.

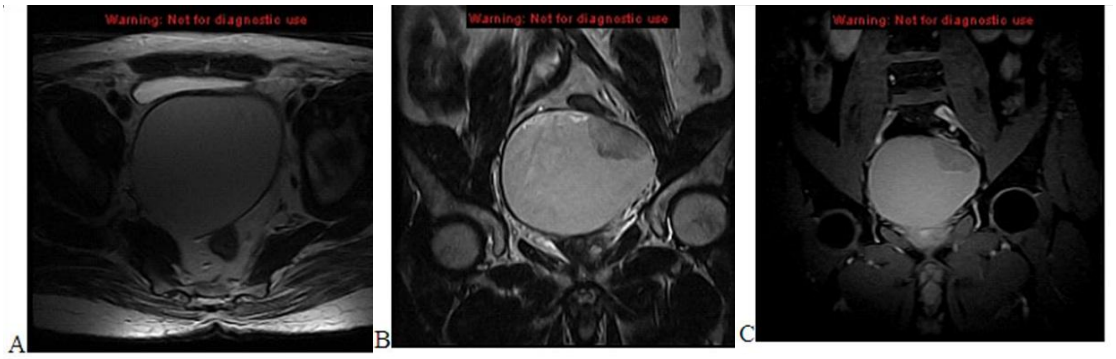

Figure 1 (A & B) Ax and coronal T2w MRI shows large cystic lesion posterior to the urinary bladder with soft tissue nodule at its left superior aspect, (C) coronal Gd-enhanced spoiled gradient (SPGR) T1w shows intermediate SI of the fluid content with no enhancement at the soft tissue nodule.

Macroscopic examination revealed enlarged SV by cystic structure about 12 x 8cm with thick fibrous wall containing friable necrotic mass friable with light brown colour and soft consistency.

The prostate was of average size with nodular outer and cut surface with no detected gross abnormalities. There were three dissected LNs.

Microscopic examination revealed cystic structure which was formed of inner epithelium, middle muscular and outer fibrous layers (Figure 2A). The epithelium is formed of ulcerated columner epithelium with focal squamous metaplasia The histopathologic examination of the mass revealed variable size moderately differentiated acini in a background of mucin (Figure 2 B). All the dissected LNs were free from tumour metastasis. Immunohistochemical analysis revealed positive reactions of the tumour cells with cytokeratin 7 (Figure 2 C), but negative reactions with PSA (Figure 2 D), and cytokeratin 20. So, our final diagnosis was primary well-differentiated adenocarcinoma of left seminal vesicle cyst.

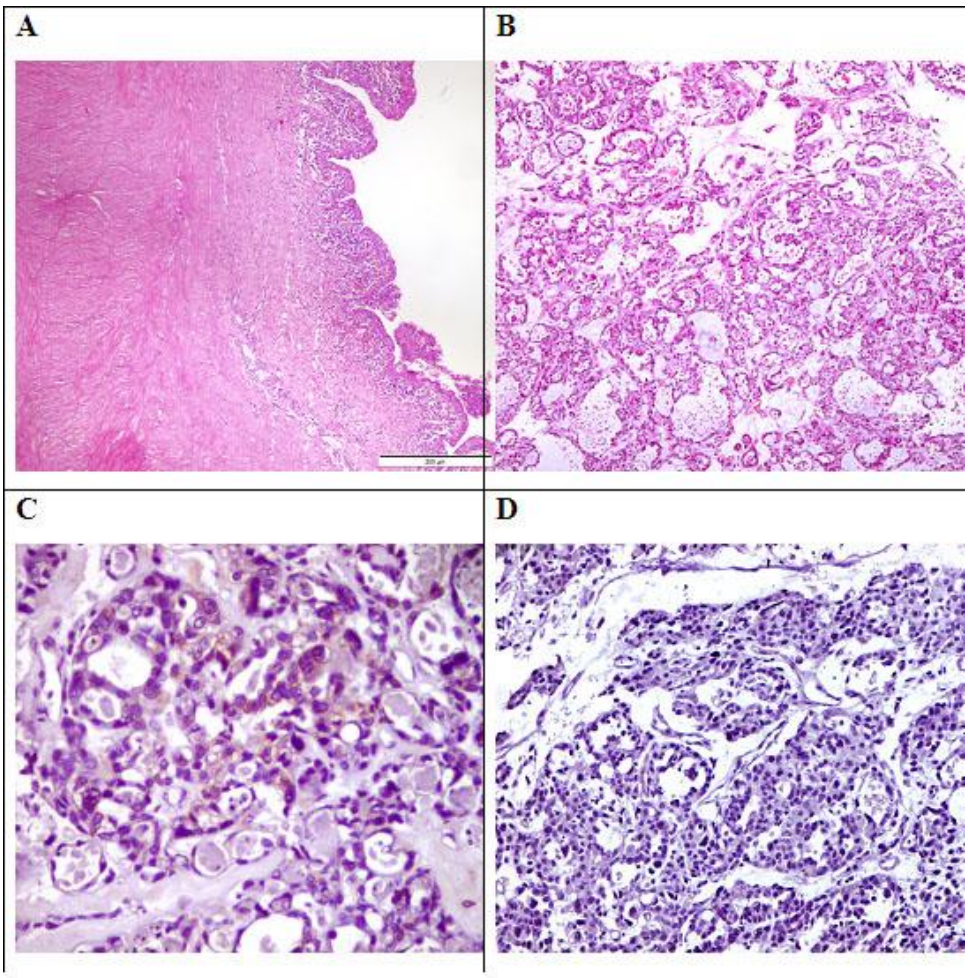

Figure 2 A, showed cystic structure which was formed of inner epithelium and middle muscular. B, showed SV adenocarcinoma formed of variable size moderately differentiated acini in a background of mucin. C, Immunohistochemical analysis revealed positive reactions of the tumour cells with cytokeratin 7 D, negative reactions with PSA.

Discussion

Cysts of the seminal vesicles are uncommon, with fewer than 100 cases [5]. Herein, we reported a case of primary mucinous carcinoma arising in SV cyst. Primary tumors of the seminal vesicles, such as adenocarcinoma, sarcoma or lymphoma, are rare findings, and secondary tumors are more common [6]. In 1956, Dalgaard and Giertson established

histopathological criteria for a diagnosis of SVCA. These criteria can be readily applied when evaluating surgical resection [7]. Moreover, even when surgical resection specimens are evaluated, immunostains are still used in conjunction with histomorphology to confirm a diagnosis [8]. Reported cases of SVC have consistently demonstrated an absence of staining for prostate-specific antigen (PSA) and prostate-specific acid phosphatase (PAP), a property that helps distinguish SVC from prostatic adenocarcinoma [8].

The most common symptoms of SVC are obustrutive uropathy and heamturia. Anther unusual presentation of SVC of the seminal vesicle cyst is associatiation with an ectopic ureter opening into the seminal vesicle and ipsilateral renal agenesis [6]. In 2013, Lote et al described a case of SVC who subsequently developed cytoplasmic ANCA vasculitis requiring intensive immunosuppression and renal dialysis [1]. Surprisingly, Ormsby et al, 1996 reported a case of bilateral SVC localized to both lobes of SV and the adjacent right lobe of the prostate and it was the fourth reported case to date [8]. In addition, Zenklusen et al, 1990 reported a case of unique triad of a carcinosarcoma and an adenocarcinoma of the prostate as well as an adenocarcinoma of the seminal vesicles [9].

Operable primary SVC are treated with radical surgery – cystoprostoseminovesiculolectomy with bilateral pelvic lymphadenectomy. Long term survival data are not available. No definite recommendations are available for adjuvant therapy, which must be individualized [10].

In summary, we reported a case of SVA of SV cyst arising in deaf mute patient. Over three decades, this was the first reported case at Mansoura Urology and Nephrology Center, Mansoura University, Egypt.

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