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Case Report

Prostatic Stromal Tumor of Uncertain Malignant Potential (STUMP). An Incidental Diagnosis

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Abstract

Prostatic stromal tumor of uncertain malignant potential (STUMP) is among the extremely rare neoplasm with limited detailed information in the medical literature on clinical presentation, pathogenesis, risk factors and management. The recorded cases in medical literature are below 100 with age range between 25 to 87 years. This neoplasm may vary from Benign, Malignant and borderline. Here we present a 72 years old male who presented with acute urine retention. He had a huge prostate size rectally and by KUB USS/Magnetic Resonance Imaging (MRI), but also had regional pelvic Lymph nodes involvement and bone metastasis at the time of diagnosis. Histopathological examination confirmed the diagnosis.

Keywords

Rare, Limited, STUMP.

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Introduction

Prostatic stromal tumor of uncertain malignant potential (STUMP) is extremely rare tumor of the prostate exhibiting atypical stromal proliferation and unpredictable clinical courses. STUMPs are diagnosed in the line of evaluation of raised PSA or when distance metastasis is diagnosed in imaging. It is challenging both in diagnosis and its management. The clinical, Laboratory and imaging findings are not specific for this neoplasm [1-3]. The incidence, etiological risk factors and pathogenesis are not clear to date. Most of these tumors are benign but others may have ability of local invasion or progress to prostatic stromal sarcoma with distant metastasis (Malignant) and some are borderline. The documented age in STUMPs ranges between 25 to 87 years [4]. Majority of STUMPs are diagnosed by Needle biopsy as in Tru cut biopsy, but also after Trans urethral resection of prostate and fewer cases after open prostatectomy. Regardless of variability in histological appearances, all cases of STUMPs have a common expansion of specialized prostate stroma, and are non-epithelial mesenchymal spindle cell tumor [5,6].

Case Presentation

A 72 years old male who presented with a three days history of inability to pass urine. Prior to this he had on and off obstructive lower urinary tract symptoms. He was catheterized per urethra upon medical consultation. He is not diabetic neither hypertensive. He is a peasant. General examination he is health looking with

stable vital signs. Per abdomen there was no significant finding and Digital rectal examination had abnormally large prostate almost obstructing the rectal lumen, it was firm, asymmetrical with obliterated median sulcus, no nodules. Other systemic examination was essentially normal.

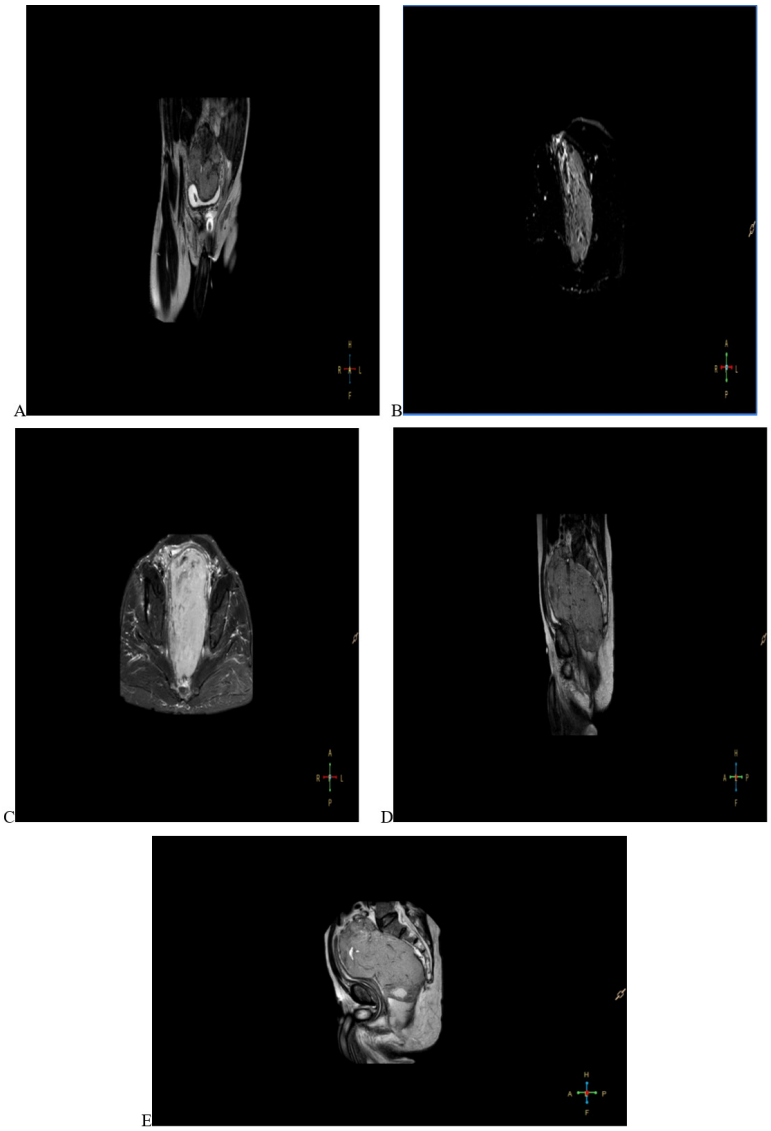
Laboratory

Complete blood count: Hb:12g/dl, Normal level of white blood cell and platelets, Creatinine: 61micr/L, RBG: 4.2mmo/L, PSA: 0.9ng/dl, Urinalysis: No abnormality.

Imaging

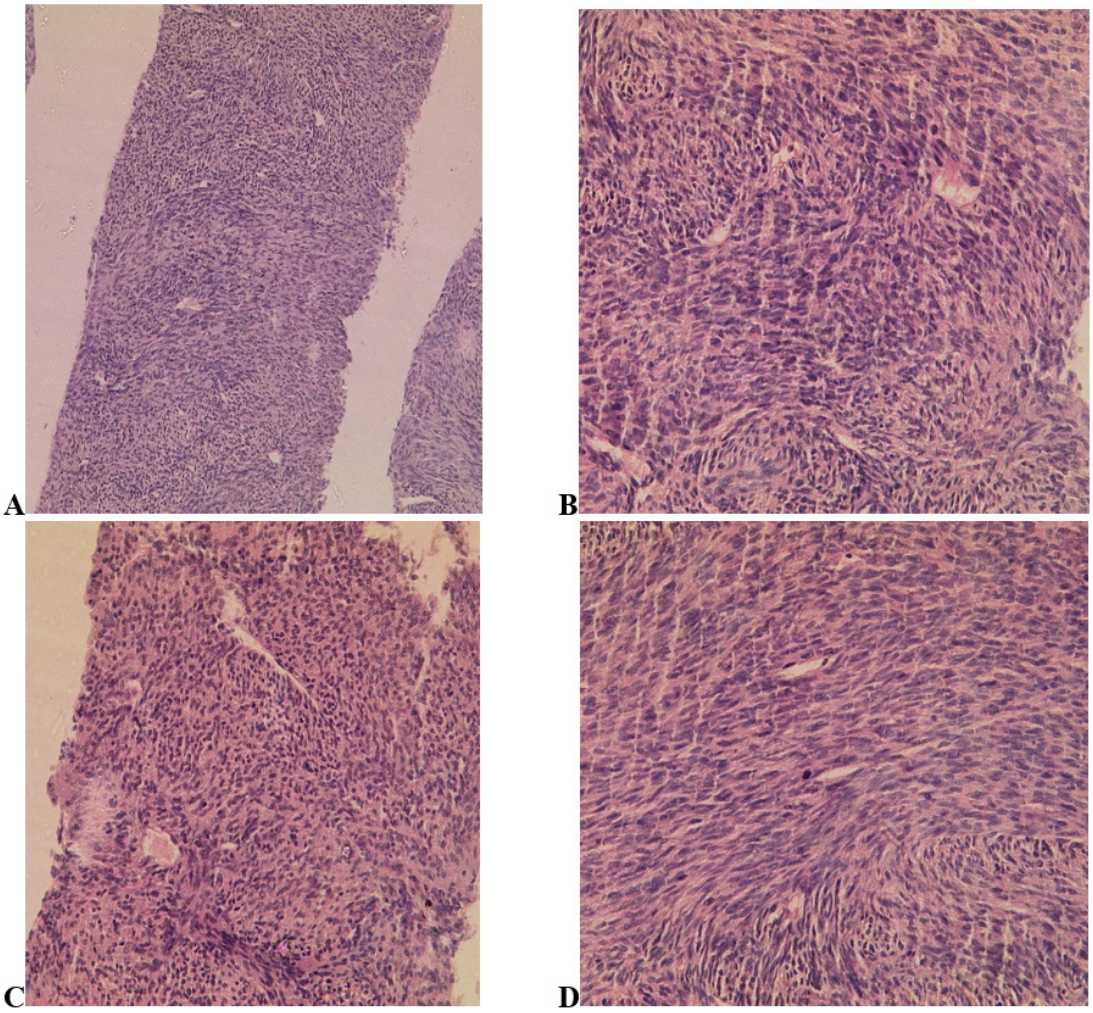
KUB USS: Both kidneys appeared normal in size, shape, texture with preserved corticomedullary differentiation, No calyceal dilatation. No renal mass, cyst or calculus. Urinary bladder appeared well distended with normal wall thickness, no diverticulum, or polyps seen. Ballon catheter insitu. Prostate size 451cc.

CXR: No lesion was noted. Lung fields are clear, Costophrenic angles were clear. No rib lesions.
MRI: Multiplanar multisequence MR Images with IV Contrast revealed a huge pelvic mass, ovoid. It measures 10cmsx9cmsx17cms, it has heterogeneous signal in bothT1W and T2W.There is diffuse restriction. In T1W with IV contrast there is heterogeneous enhancement. There is no clear demarcation between urinary bladder and prostate and urinary bladder is pushed anteriorly. There are multiple inguinal Lymph nodes enlargement bilaterally and are about 1cms in diameter. There are multiple lesions in the pelvic and femoral bones. Conclusion; Extracapsular Prostate carcinoma with inguinal LNs involvement and bone metastasis (See the MRI images below in Figures A-E).



MRI images of the pelvic with IV contrast showing a huge pelvic heterogeneous solid pelvic mass that has low signal on T1W (Image A), intermediate signal on T2W (Images B&C), bright signal on STIR (Image D) and heterogeneous post-contrast enhancement on T1W+C (Image E). The mass which shows restriction on ADC/DWI sequences (Images F&G) causes compression and anterior displacement of the urinary bladder. It also causes severe compression of the ano-rectum posteriorly.

Histopathological examination: (See the images below)



Figures (A & B) low and medium power field showing a core composed of fascicles of spindled cells with moderate vascularization devoid of glandular epithelium. Figures (C & D) high power field which show spindled cells with minimal atypia consistent with a stromal tumor of uncertain malignant potential.

Discussion

Prostate Stromal tumor of uncertain (Undetermined) malignant potential is a neoplasm which mainly is diagnosed as an incidental condition. Currently the medical literature lacks guideline on how to diagnose in terms of clinical presentation and investigations. Also, there is no consensus on the modality of treatment however some studies believe open prostatectomy may play a role. Some cases are diagnosed with metastatic disease at the time of first consultation to the urologist. Also, the range of cases in the medical literature surprisingly is from 25 to 87 years as documented in some studies. The client presented here had regional pelvic lymphadenopathy, pelvic and femoral bone metastasis, also unlike in other studies, Prostate specific antigen was not elevated in this case(0.9ng/ml). The prostate was significantly huge rectally and it was among the biggest size recorded by imaging in our setting. To the best of our knowledge there is no other report on this condition in our setting.

Conclusion

STUMP should be considered as part of differential diagnosis for clients presenting with lower urinary tract symptoms from around second decade, and high index of suspicious is mandatory. Imaging especially MRI plays a pivotal role in the diagnosis and as a hint towards Tru cut biopsy of prostate so as to confirm the diagnosis. It should be born in mind that what is considered normal PSA should not make clinicians at ease as metastasis is possible in case of STUMP as observed in this case report. For senior clients, this neoplasm may coexist with adenocarcinoma of the prostate.

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