INTRODUCTION

Malignant tumors of the prostate that display biphasic patterns are very rare. They include sarcomatoid carcinomas (SC) and carcinosarcomas (CS). It is an admixture of high grade epithelial and sarcomatoid components, although it is still unclear that these cases represent a co-existent epithelial and mesenchymal elements (carcinosarcoma) or an evolution of an underlying adenocarcinoma into a lesion with associated sarcomatoid features and occasional heterologous elements (sarcomatoid carcinoma).\(^1\) However, WHO classification of urinary tract tumor does not distinguish between Sarcomatoid carcinoma (SC) and Carcinosarcoma (CS) and mentions all these lesions under the term “Sarcomatoid carcinoma”.\(^1\) In contrast to adenocarcinoma Prostate, it is an aggressive malignancy, while the treatment is non-standardized. The patient may present with irritative symptoms (frequency, nocturia, urgency) and/or obstructive symptoms (poor stream, incomplete emptying or retention). Hematuria, perineal/rectal pain and burning on ejaculation are uncommon symptoms.\(^2\) Hereby, we report a case of a 65 year old gentleman with Sarcomatoid carcinoma Prostate and discuss the treatment protocol of this uncommon tumor.

Case report

A 65 year old gentleman presented to our department with complaints of increased frequency of urine for last 6 months and back ache for the last two months. Digital rectal examination revealed grade I prostatomegaly, with left lobe of Prostate disproportionately enlarged and hard in consistency. There was no palpable lymphadenopathy, and the rest of his physical examination was unremarkable. His serum PSA was 495 ng/ml. A tru-cut biopsy of Prostate showed malignant epithelial cells forming glands (Adenocarcinoma) scattered in a stroma composed of bizarre mesenchymal cells (Sarcoma) with infiltration into adipose tissue consistent with diagnosis of Carcinosarcoma Prostate (Gleason score 4+5) (Figures 1 and 2).

In view of biopsy findings patient underwent further evaluation and found to have bone metastases. Patient was started on anti-androgen therapy and bilateral subcapsular Orchiectomy was done. Palliative External beam Radiotherapy was recommended to painful bone metastases along with Inj Bisphosphonates monthly.

DISCUSSION

Carcinosarcoma of Prostate also known as Sarcomatoid carcinoma is a rare biphasic malignancy with a malignant epithelial component (carcinomatous) and a malignant mesenchymal component (sarcomatous) with the presence or absence of heterologous elements.\(^3\) The histogenesis of prostate carcinosarcoma is not completely understood. Proposed mechanisms include transformation of...
epithelial elements into a sarcomatous component and divergent differentiation of epithelial stem cells into both malignant components. WHO classification use the term “Sarcomatoid carcinoma” to denote all of these lesions. The carcinomatous component is usually acinar but may be ductal adenocarcinoma. Squamous or adenosquamous carcinoma or mixed urothelial squamous components and is usually of high grade. The type of sarcoma may vary, including elements such as osteosarcoma, chondrosarcoma, rhabdomyosarcoma, leiomyosarcoma and angiosarcoma. In about half of all cases, the initial diagnosis was a usual acinar adenocarcinoma, followed by hormonal and/or radiation therapy, with a subsequent diagnosis of sarcomatoid carcinoma. By immunohistochemistry, epithelial elements react with cytokeratins, PSA, PSAP whereas sarcomatoid elements react with vimentin or specific markers corresponding to the mesenchymal differentiation. The sarcomatoid component is considered to be Gleason grade 5, with the glandular element, if present, assigned a grade according to the usual rules. PSA values are usually within normal limits, possibly due to “dedifferentiation” of tumor cells.

The prognosis of prostate carcinosarcoma is poor, with death invariably occurring within 2 years regardless of treatment modality.

REFERENCES

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Authors Contribution:

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