

Primary Squamous Cell Carcinoma of Prostate: Rare Entity with Aggressive Clinical Course

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Abstract: *Primary squamous cell carcinoma of prostate is a rare tumor comprising less than 1 % of all prostatic malignancies. We report a case of 55-year-old patient who was managed by chemotherapy and presented with very aggressive clinical course.*

Keywords: Squamous cell carcinoma, Prostate cancer, Obstructive uropathy

1. Introduction

Most of prostate malignancies are adenocarcinoma by histopathology. Primary squamous cell carcinoma (SCC) of prostate is a rare entity which is more aggressive than adenocarcinoma.¹ Appropriate management for SCC of prostate is not well established because of rare incidence. Several therapeutic options have been employed to treat prostatic SCC. Most of them haven't shown a significant survival benefit.²

2. Case Report

A 55-year-old male presented with difficulty in voiding, dysuria, pain in pelvic region, weakness and loss of weight for last 4 months. On general physical examination patient was found to be in poor nutritional status and anemic. On local physical examination he had suprapubic fullness and external urethral meatal stenosis. The prostate was hard on digital rectal examination with nodularity and rectal mucosa fixed with it. On lab investigation his haemoglobin was 7.0 gm %, serum creatinine was 9.5 mg/dl, serum prostate specific antigen (PSA) was 0.8 ng/dl. On ultrasound of abdomen bladder was distended with prostate enlargement and bilateral hydronephrosis. The noncontrast computed tomography of abdomen and pelvis showed 9.5×7×7 cm³ heterodense lesion infiltrating into bladder base (Figure 1). Patient was managed initially with suprapubic cystostomy but as renal parameters didn't improve, bilateral percutaneous nephrostomy was performed. After improvement of renal parameters patient was planned for transrectal ultrasonography guided prostate needle biopsy. The needle biopsy reported nests of atypical squamous cells with mild nuclear pleomorphism and infiltration into fibrous stroma without any noticeable prostatic acini suggestive of squamous cell carcinoma (Figure 2). The metastatic work up such as liver function tests, chest radiography and bone scan were normal. The tumor was staged as T4 N0 M0. The patient was planned for combined chemo and radiotherapy. We administered total 2 courses of cisplatin 75 mg/m² on day 1 and continuous infusion 5-fluorouracil 750 mg/m² on day 1 to 5. Patient was subsequently planned for further treatment but before that he died because of very aggressive nature of disease.

3. Discussion

Primary squamous cell carcinoma of prostate is a rare tumor comprising less than 1% of all prostatic malignancy.² The age of presentation ranges from 52-79 years with mean of 59 and our patient was 55 years old at the time of presentation.³ It has been found to be rather very aggressive malignancy with an average survival of 14 months compared to slow growth of adenocarcinoma of prostate.² It generally presents with advanced stage due to its rapid growth rate and symptoms such as obstructive lower urinary tract or even metastasis to bone.⁴ The pathogenesis of SCC is not fully understood. There has been few reports and also speculated that the squamous cell component might be derived from squamous metaplasia of acini and ductal elements following radiation or hormonal therapy for prostatic adenocarcinoma.^{5,6}

Clinically, SCC is different from most common counterpart, prostate adenocarcinoma. In terms of biochemical markers, the SCC of prostate typically does not result in elevated levels of PSA. In addition, bone metastases are found to have an osteolytic rather than the osteoblastic appearance seen in adenocarcinoma.¹ Because SCC remains a rare occurrence, no specific treatment modality has been widely accepted. Surgical treatment and multimodal approaches are most commonly used with varying degrees of success.

Some authors have reported an encouraging result of treating with concurrent chemo-radiotherapy using cisplatin and 5FU, similar to the regimen used in SCC of anal origin. There patient was disease free for 5 years after that he relapsed and died.² Some authors have practiced surgical procedure similar to be done in adenocarcinoma of prostate but overall survival was unfavourable.⁷

In our case patient had received 2 cycle of chemotherapy and after which he succumbed to disease. In conclusion there is no definitive management option for SCC of prostate at present and yet need to be established.

4. Legends of figures

- 1) Coronal plane noncontrast computer tomography of abdomen pelvis showing large growth of prostate (arrow head)

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- 2) Haematoxylin and eosin-stained sections showing solid sheets of squamous cells infiltrating the prostate gland (original magnification 10×)

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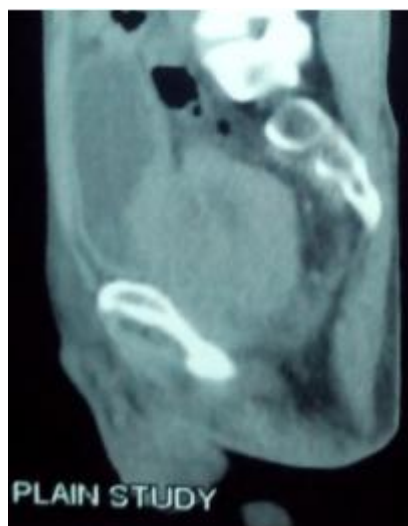


Figure 1

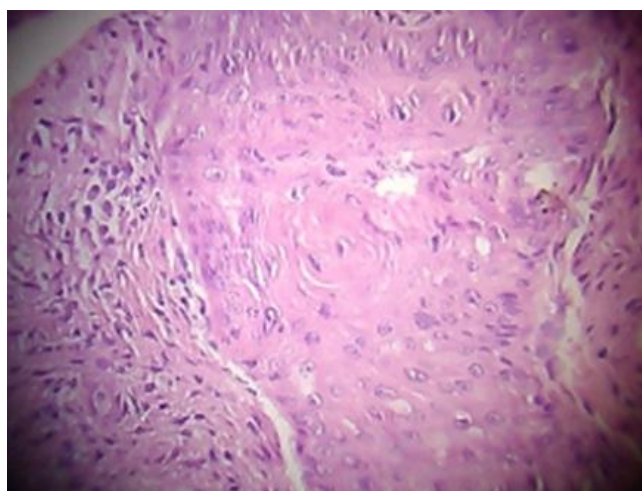


Figure 2