

ADVANCED CARCINOMA OF THE PROSTATE GLAND PRESENTING AS PRIAPISM: A CASE REPORT

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ABSTRACT

A case of advanced carcinoma of the prostate gland in a 73-year-old man presenting as veno-occlusive priapism of four weeks duration is reported. Direct surgical measures on the obviously hypoxic penis for detumescence were deliberately avoided for fear of wound failure. Treatment was rather directed at the primary condition because no treatment was considered reasonable for the priapism. A likely mechanism for development of priapism in this patient is suggested and suspicion of carcinoma of the prostate in certain patient groups presenting with priapism is advised.

KEYWORDS: Priapism, Prostate cancer

INTRODUCTION

Priapism or persistent, often painful erection of the penis without sexual desire is traditionally classified as primary or idiopathic and secondary depending on whether the cause is known or not. Haemodynamically it can be separated into two distinct types; low flow and high flow (Lue TF, 1998). Pathophysiologically, priapism has been classified as veno-occlusive or arterial, to correspond with the low flow and arterial types respectively (Witt, Goldstein, Saenz de Tejada, *et al*, 1990). It can occur at any age, including the newborn. In the younger age group, it is most often associated with sickle cell disease (Osegbe and Adetayo, 1994) and neoplasm while in the older age groups many cases are idiopathic (Hashmat and Rehman, 1993. Aghaji, 2000). We present a case of carcinoma of the prostate gland presenting as priapism, to draw attention to this rare complication of a now relatively common disease.

CASE REPORT

Mr. E.E.D. (UCTH Hospital No.042235) a 73-year old retired gentleman of Efik extraction, presented in the urology clinic with a history of sustained, painful erection of the penis of four weeks duration. The penis had become erect spontaneously, without any antecedent events

The patient was voluntarily celibate for five years before the priapism and in the two years immediately preceding the event, had not had any erection. Prior to presentation, he tried various drugs for pain relief to no avail. There was no previous history of priapism. He was not a sickler, not diabetic or hypertensive and was not on any regular medications. He was found on probing to also have lower urinary tract symptoms (LUTS).

Examination showed a generally fit patient in painful distress. The penis was partially tumescent, cold and somewhat tender. Turgidity was more marked in the corpora cavernosa than in the corpus spongiosum.

There was residual urine detected by percussion. Digital rectal examination (DRE) showed a markedly enlarged prostate gland that felt clearly malignant. It was hard, nodular with complete obliteration of the median groove, infiltration of both lateral sulci and tethering the of rectal mucosa.

A clinical diagnosis of priapism possibly from metastatic prostatic adenocarcinoma was made. Investigations ordered include; Electrolytes urea and creatinine (E/U&Cr), urinalysis, Full blood count including platelet, erythrocytes, and ESR, Urine microscopy, culture and sensitivity. Chest x-rays, Ultrasound scans (USS) of the bladder/prostate were also obtained, as was Trans-rectal trucut biopsy of the gland. Direct surgical relief of priapism was deliberately avoided. It was reasoned that the corporal tissues having been relatively hypoxic for about 4 weeks would pose problems of wound healing. This stance was justified the more by the patient's already celibate status

Results of investigations showed normal haematologic parameters as follows, Hb.13.3gm%, Wbc 6.6×10^9 /L (Neut.57%, Lymph.43%) and ESR 12mm/hr. Electrolytes, Urea and Creatinine were also normal. Ultrasound scans of the prostate showed prostatic echogenicity consistent with malignancy. PSA was 50.2ng/ml, while biopsy confirmed an aggressive prostatic adenocarcinoma with a Gleason grade of 5 and a Score of 10. Treatment aimed at the primary lesion, was by bilateral orchiectomy augmented with the anti-androgen drug bicalutamide in a dose of 50 mg daily. Priapism was relieved slightly more than one week from commencement of treatment and response to androgen ablation was good as evidenced by a drop in PSA to 5.0ng/ml three months post orchiectomy.

DISCUSSION

Even though priapism can occur at any age, it is relatively uncommon in the extremes of life. The incidence peaks between the ages of 5-10 years and

20-50 years (Lue TF, 1998). While the condition in the younger age group is often attributable to sickle cell disease (Osegbe and Adetayo, 1994) and myeloproliferative disorders in the older patient (Bhatia, Arya, Chinnappan, *et al*, 1992), idiopathic thrombosis occurring in the prostatic plexus of veins has been postulated (Rains and Mann, 1990). Some neoplastic conditions have been associated with the condition, notable among these are leukaemia (Bhatia, Arya, Chinnappan, *et al*, 1992), renal cell carcinoma (Puppo, Perachimo, Ricciotti *et al*, 1992) and melanoma (Saggar and Retsas, 1992). Priapism attributable to carcinoma of the prostate gland is rare and only one report was found in the literature (Schroeder-Printzen, Vosschenrich and Weidner *et al*, 1994).

Malignancy itself does not result in priapism, but it is conceivable that venous drainage may be impaired either by induction of thrombosis in the prostatic plexus of veins or by direct infiltration of the plexus by cancer cells, thus promoting stasis and thrombosis in the remaining tissues. This is easily confirmed by imaging techniques like Duplex Doppler ultrasound, cavernosography, venography, CT or MRI. In this patient none of these could be done because the facilities were not there at the time the patient presented. However, given the massive size and aggressive nature (Gleason Grade of 5 and a Score of 10) of the tumour in this patient, prostate cancer by the mechanism described above was the likely cause of this veno-occlusive priapism, especially as the other known causes of the condition were not found in the patient.

The incidence of carcinoma of the prostate gland is on the rise worldwide (Kirby, Brawer and Denis, 2001), a situation also reflected in our local experience (Ekwere PD, Egbe SN, 2002; Osegbe, 1997). It is therefore important to highlight all possible presentations of the disease, especially the very rare ones as in this case, in order to increase and sharpen awareness about this now fairly common condition.

We present priapism as a rare complication of carcinoma of the prostate gland, which in this patient was the presenting sign, to underscore this point. We have also in so doing, highlighted certain shortcomings in our armamentarium for the care of this now not so uncommon condition. We recommend that in our environment, where the disease tends to manifest at a relatively early age, carcinoma of the prostate gland should be borne in mind when patients aged 40 years and above and who are not Hb. genotype SS present with priapism.

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