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An unusual presentation of Carcinoma of the Prostate as a Retroperitoneal Tumor: A Case Report

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Abstract
Background.
Carcinoma of the prostate is known to present in various forms, at different stages and in this environment a great number of patients usually present with the disease in advanced stages, and many, metastatic. However, its presentation in the form of a retroperitoneal mass as it was in this patient is quite uncommon.
Objective:
To report an unusual presentation of advanced carcinoma of the prostate as a huge retroperitoneal tumor in a 75 year old man.
Method:
A case report of a 75 year old man who presented with a huge retroperitoneal tumor in addition to features of bladder outlet obstruction.
Result:
We report the case of a 75 year old Nigerian man with progressive painless, suprapubic swelling of 6 years duration, with both storage and voiding urinary symptoms, in addition to history of tenesmus and reduction in stool caliber.
On examination, he was chronically ill-looking, though not pale. Abdominal findings revealed a suprapubic mass arising from the pelvis, corresponding to 24 weeks size, firm. The mass was demonstrated clinically to be intra-abdominal and retroperitoneal. The prostate was enlarged, asymmetrical, hard and nodular, with obliterated median groove. Serum PSA was 29.8ng/ml. Abdominal CT scan showed a retroperitoneal mass not separable from the prostate, and had displaced the bladder superolaterally, with possible diagnosis of: (1). Colorectal cancer with huge mesenteric adenopathy, (2). Prostatic carcinoma with rectal and mesenteric infiltration.
Prosate biopsy revealed Adenocarcinoma.
At Laparotomy a huge retroperitoneal bosselated mass was found, which was unresectable, and an incisional biopsy taken also revealed an Infiltrating Prostatic Adenocarcinoma.
Key words*: Carcinoma, Prostate, Retroperitoneal Tumor.*

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I. Introduction

Carcinoma of the prostate is the most common non-cutaneous (visceral) malignancy in men and the second most common cause of cancer specific deaths in men in the United States (1). The hospital incidence in Nigeria was previously found to be 127/100,000(2) but was reported to be 114/100,000 in 2002(3). Advanced Prostate cancer commonly presents with metastasis to the regional nodes and bones of the spine and pelvis amongst other common sites (4). Few reports in the literature have described an unusual pattern of presentation of metastatic prostate cancer, such as an abdominal mass. We report the case of a 75 year old man who presented with a huge retroperitoneal tumor, which was later diagnosed to be Prostatic Adenocarcinoma.

II. Case Report

Mr. A T is a 75 year old farmer who presented with a progressive suprapubic swelling of 6 years duration. It was painless, never disappeared at anytime and there was no swelling in any other part of the body. He noticed significant weight loss about 8 months prior to presentation. No abdominal pain or jaundice, however there was reduction in the stool caliber and tenesmus. No alternating bowel habit, hematochezia or anal protrusion. He had a history of storage and voiding lower urinary tract symptoms which he noticed following the abdominal swelling. No fever, drenching night sweat or pruritus. No cough or contact with anybody with chronic cough, no low back pain or bone pain.

On examination, he was chronically ill-looking, not pale, with no peripheral lymphadenopathy. Abdominal findings revealed a suprapubic mass corresponding to 24 weeks size, firm to hard in consistency, arising from the pelvis. The mass was demonstrated clinically to be intra-abdominal and retroperitoneal. Digital rectal examination revealed an enlarged prostate, asymmetrical, hard and nodular, with an obliterated median groove. Serum Prostate Specific Antigen (PSA) was 29.8ng/ml. Clotting profile and other haematological and biochemical parameters were normal. Computerized Tomography (CT) scan of the abdomen showed a retroperitoneal mass not separable from the prostate, displacing the bladder superiorly and laterally, suggestive of (1) Colorectal cancer with huge mesenteric adenopathy, (2) Prostatic carcinoma with rectal and mesenteric infiltration. (Figures 1 & 2)

He had trans-rectal Prostate biopsy, histopathology of which revealed Adenocarcinoma of the prostate.

At laparotomy, findings were; A huge (30 by 20by 20cm) retroperitoneal bosselated mass with mixed consistency with enlarged tortuous vessels on and within it. Both ureters were dilated. The tumor was morbidly adherent to the bladder which was displaced antero-superiorly. It was also morbidly adherent to the iliac vessels which were encased by the tumor distally. The bowel was free from tumor up to the lower sigmoid colon which disappeared beneath the tumor.

On confirming the unresectable status, an incisional biopsy of the mass was taken, and histology revealed an Infiltrating Prostatic Adenocarcinoma.

Figure 3 shows the abdominal swelling due to the mass, prior to therapy.

Patient had maximal androgen blockade therapy offered (bilateral total orchidectomy+ anti androgen (flutamide) post operatively, and there has been a good response to therapy. At four months into the treatment, the mass was noticed to have reduced considerably in size by about 50% (figure 4) and his lower urinary tract symptoms had resolved.

III. Discussion

Carcinoma of the prostate (CAP) often presents with features of lower urinary tract obstruction, and indeed, in this environment most cases present in advanced stages (up to 80%) (5-7) and about two-thirds of cases present with metastasis. Ajape et al and Badmus et al corroborated this as in their respective studies 88.9% and 94.2% of patients presented with locally advanced or metastatic disease (5,6). Metastases most commonly occur in the obturator nodes and the bony skeleton, especially the lumbo-sacral spine. Prostate carcinoma rarely spreads to soft tissues (4). Extra abdominal metastases have also been documented, including Pulmonary (8), Pleural, with massive effusion (9), Intracranial (10,11), Cutaneous (12), Cervical nodes (13), and as orbital metastasis with unilateral proptosis (14). However, these extra abdominal occurrences are rare. Presentation as a retroperitoneal tumor as it was in this case is also very rare. There are few reports in literature describing similar abdominal presentations. In a review of patients below 50 years with metastatic CAP by Astigueta at al, 2.4% were found to have abdominal tumors (15). Kabeer at al described a similar presentation as an abdominal mass, actually a cecal tumor (16). Iqbal Singh also reported a case of advanced metastatic prostate cancer presenting as a huge abdominal lump in which there was a massive retroperitoneal hard, fixed nodular lymphnodal mass and a pancreatic mass (4). Kaswala et al also described a rare case of Duodenal metastasis from Prostatic carcinoma (17). In our own case the patient had a huge retroperitoneal mass encasing the external iliac vessels and displacing the bladder supero-laterally.

Retroperitoneal tumors are rare entities and are usually locally aggressive, their primary form constitutes about 0.3-3% of all such tumors (18) i.e they are often secondary.

The most common urogenital tumor which metastasizes to the retroperitoneum is the testis and the prostate much rarer.

Elevation of serum PSA occurs in intrinsic prostatic diseases, but can also occur in extraprostatic lesions infiltrating the prostate and this can lead to diagnostic dilemma on which of the conditions is the actual primary. Prostatic carcinomas which present as huge abdominal masses are usually the poorly differentiated carcinomas with little or no rise in PSA but the converse is the case in our patient, in whom the bulky tumor was associated with a significant elevation in PSA. Presentation of prostatic adenocarcinoma as an abdominal mass is rare (19).

Treatment modalities for carcinoma of the prostate includes surgery, hormonal therapy, radiotherapy, chemotherapy, depending on the stage of the disease at presentation.

Treatment of advanced prostate carcinoma in this environment lies basically on hormonal manipulation and that is what we have offered this patient, with evidence of response, though evidence exists that response is favored by the level of differentiation(4), however the patient may still benefit from other modalities of treatment.

IV. Conclusion

Prostate cancer has various modes of presentation and is shown to have a biologically heterogenous nature. Advanced Prostate Carcinoma can present as a huge intra-abdominal tumor and should thus be kept in mind as a possible differential in the diagnostic work up of such patients.

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FIGURES.

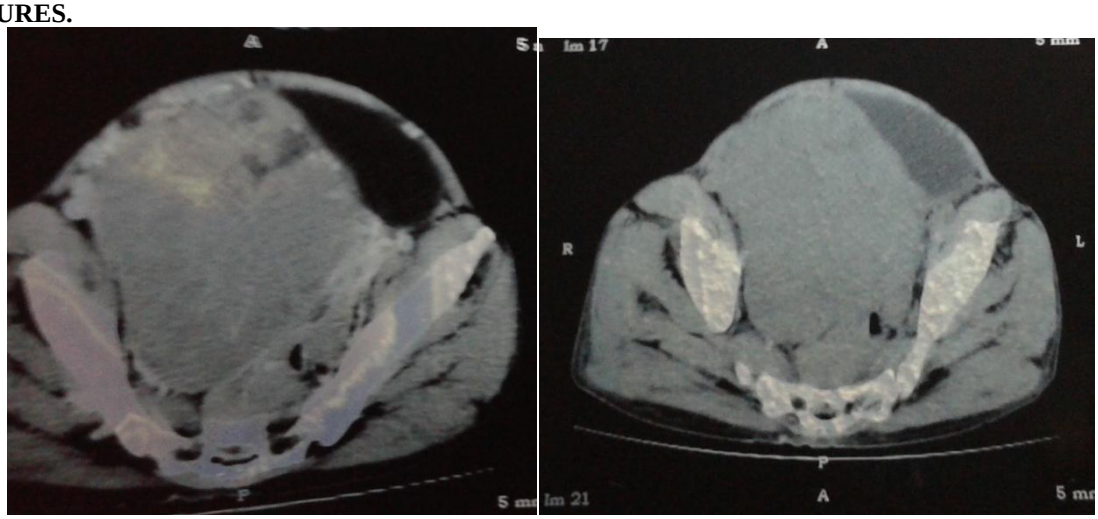

Figure 1. Axial cuts showing the mass at different levels, with the bladder displaced anterolaterally (Left: Without contrast, Right: With contrast).

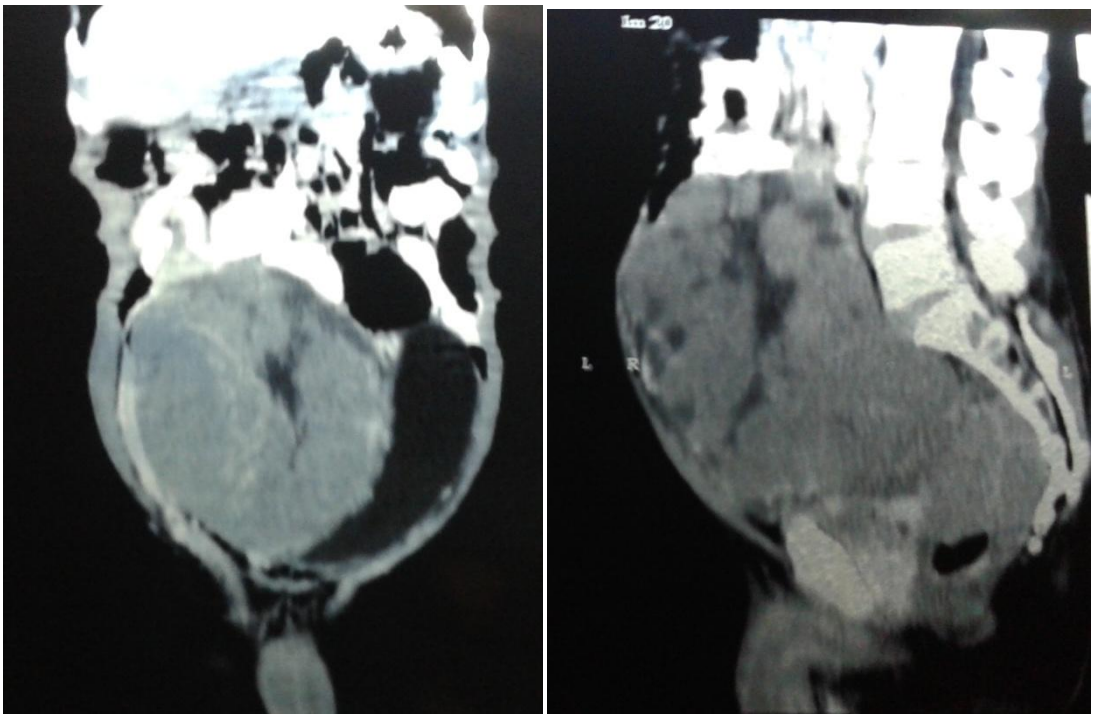

Figure 2: Coronal and Sagittal CT reconstructions.

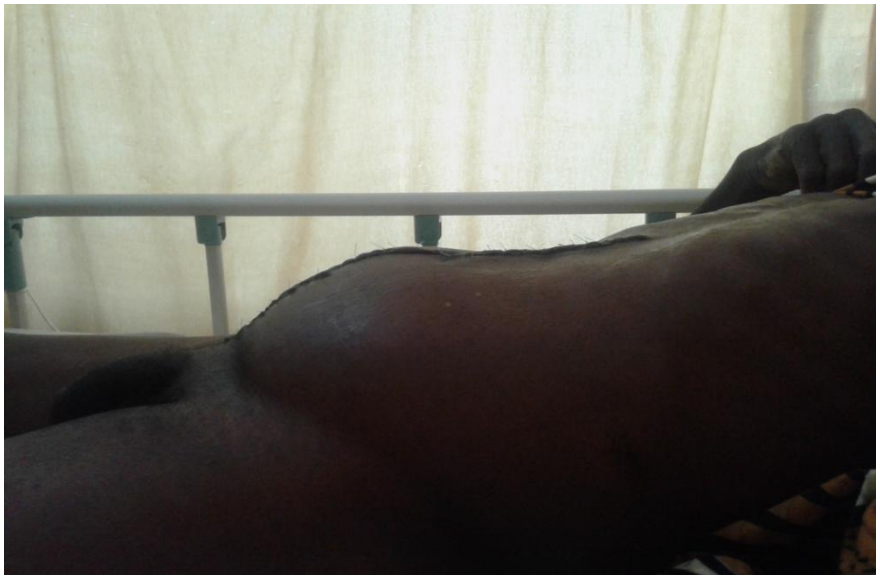

Figure 3: Surface contour of the mass prior to therapy.

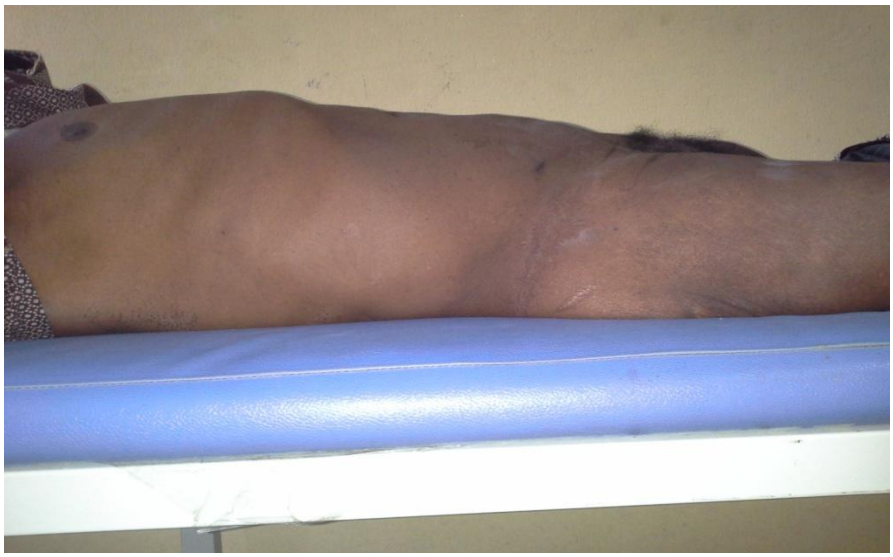

Figure 4: Surface contour of the mass four months on therapy.

Legend to Figures.
Figure 1. Axial cuts showing the mass at different levels, with the bladder displaced anterolaterally (Left: Without contrast, Right: With contrast).
Figure 2: Coronal and Sagittal CT reconstructions.
Figure 3: Surface contour of the mass prior to therapy.
Figure 4: Surface contour of the mass four months on therapy.

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