

# Radical Prostatectomy for Organ Confined Prostate Cancer in University of Benin Teaching Hospital: A Case Report

**\*OSAGHAE SO, \*\*OFUANI JI**

*\* Department of Surgery, University of Benin/Urology Unit, University of Benin Teaching Hospital, Benin City, Edo State.  
\*\* Urology Unit, University of Benin Teaching Hospital, Benin City, Edo State.*

*Correspondence  
Dr. S. O Osaghae  
Urology Unit, Department of Surgery,  
University of Benin/University of Benin  
Teaching Hospital  
Benin City, Edo State.  
Email: samuel.osaghae@uniben.edu*

ABSTRACT

**Objective:** Early diagnosis of prostate cancer has increased the identification of organ confined prostate cancer in Nigeria. Potentially curative treatment by radical prostatectomy was commenced in University of Benin Teaching Hospital with this index case. The objective is to report the index case of radical prostatectomy for organ confined prostate cancer in University of Benin Teaching Hospital.

**Case Description:** Patient presented with lower urinary tract symptoms, clinically benign prostate, and elevated PSA, 21.2ng/ml. Ultrasound-guided prostate biopsy and staging investigations confirmed organ-confined prostate adenocarcinoma. Treatment was by open radical retropubic prostatectomy. The oncological and functional outcomes up to a year later was good.

**Conclusion:** With careful patient selection, available expertise and skill, open radical prostatectomy can be safely performed in resource limited settings.

**Keywords:** Prostate; cancer; radical prostatectomy; radiotherapy

## INTRODUCTION

Prostate cancer is a leading cause of morbidity and mortality in black men worldwide. The true incidence of organ confined prostate cancer in Nigeria is unavailable but appears to be increasing with more awareness and availability of screening tests. Increasing cases of organ-confined prostate cancer are being diagnosed in University of Benin Teaching Hospital, UBTH. Radical prostatectomy, the commonest curative surgical treatment for prostate cancer (Cassell et al., 2019; Rebbeck et al., 2013; Osaghae, 2020) was not available. The procedure was recently introduced as an option for treatment in UBTH. The objective of this report was to document our experience with the index case of open retropubic radical prostatectomy in a 67 years old patient diagnosed with localized prostate cancer.

## CASE DESCRIPTION

**Patient information:** The patient was 67-year-old Nigerian male who resides in Benin City. He

presented with complaints of difficulty with urination of one year duration characterized by frequency, nocturia, urgency, urge incontinence, weak stream, straining, intermittency, and terminal dribble. He did not have low back pain, weight loss or anorexia.

**Citation:** Osaghae SO, Ofuani JI (2022). Radical prostatectomy for organ confined prostate cancer in University of Benin Teaching Hospital: A case report. Nig J Med Dent Educ; 4(2):34-37.

There was a medical history of bipolar affective disorder for 40 years treated by Chlorpromazine; and hypertension for five years well controlled with Nifedipine. No previous surgeries or record of allergies. The patient is an ex-smoker and takes alcohol occasionally.

There was no known family history of prostate cancer or other malignancies. The patient was married, sexually impotent and lived in a

monogamous setting with five children with no desire for more.

**Clinical examination findings:** General examination was unremarkable. The prostate was enlarged, firm, and not overtly malignant.

**Diagnostic assessment:** The prostate specific antigen (PSA) at presentation in July 2018 was 21.2ng/ml. Abdominopelvic ultrasound scan reported 86.7cc prostate size with heterogenous appearance and prominent median lobe. There was significant post-void residual urine volume of 287mls. The serum electrolytes, urea and creatinine were normal.

Staging MRI prostate and pelvis reported heterogenous prostate appearance with intact capsule and no evidence suggestive of local neoplasm or distant metastases. A subsequent systematic transrectal ultrasound-guided prostate biopsy revealed prostate adenocarcinoma, Gleason 3 + 3= 6 (ISUP grade 1). Based on these parameters, a diagnosis of high-risk organ confined prostate cancer was made (T<sub>1c</sub> N<sub>0</sub> M<sub>0</sub>). Following discussion of treatment options of active surveillance, radical radiotherapy, and radical

prostatectomy, the patient elected for open radical retropubic prostatectomy.

Subsequently, there was satisfactory pre-operative medical, psychiatric and anaesthetist assessments of fitness for surgery.

**Therapeutic intervention and early outcome:** For patient personal reasons, there was delay in proceeding to surgery. Hence, he was commenced on neo-adjuvant oral Bicalutamide 50mg once daily until he had open retropubic radical prostatectomy, three months later on 15th October 2018. The procedure and recovery were uneventful. He was discharged home in a satisfactory condition on the 11th post operative day. The specimen histology was same as the biopsy histology, Gleason 3 + 3 adenocarcinoma with clear margins. He subsequently attended serial follow-up reviews at urology out-patient clinics. As the patient was considered to have high-risk disease, he was offered but declined adjuvant hormonal therapy. After about a year, he had good oncological and functional outcomes. The PSA was undetectable. He was fully continent of urine but remained sexually impotent. Bowel function was normal, and he was not restricted in activities of daily living.

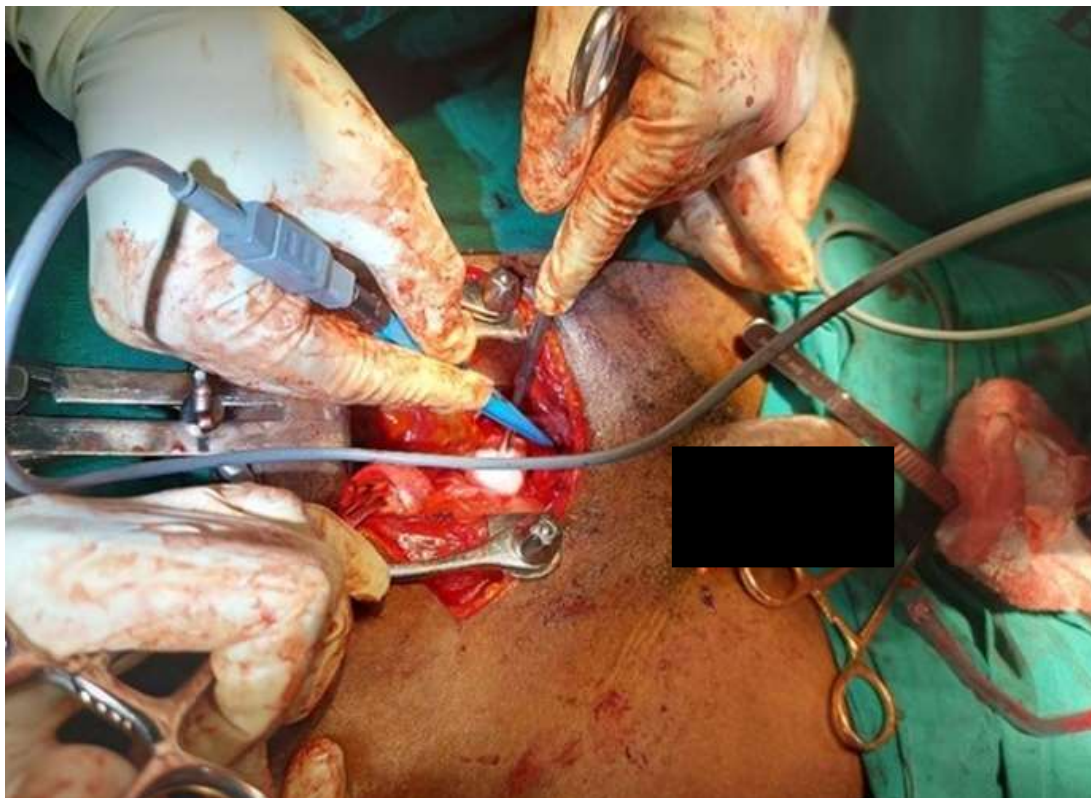


Figure 1: Intraoperative photography of radical prostatectomy

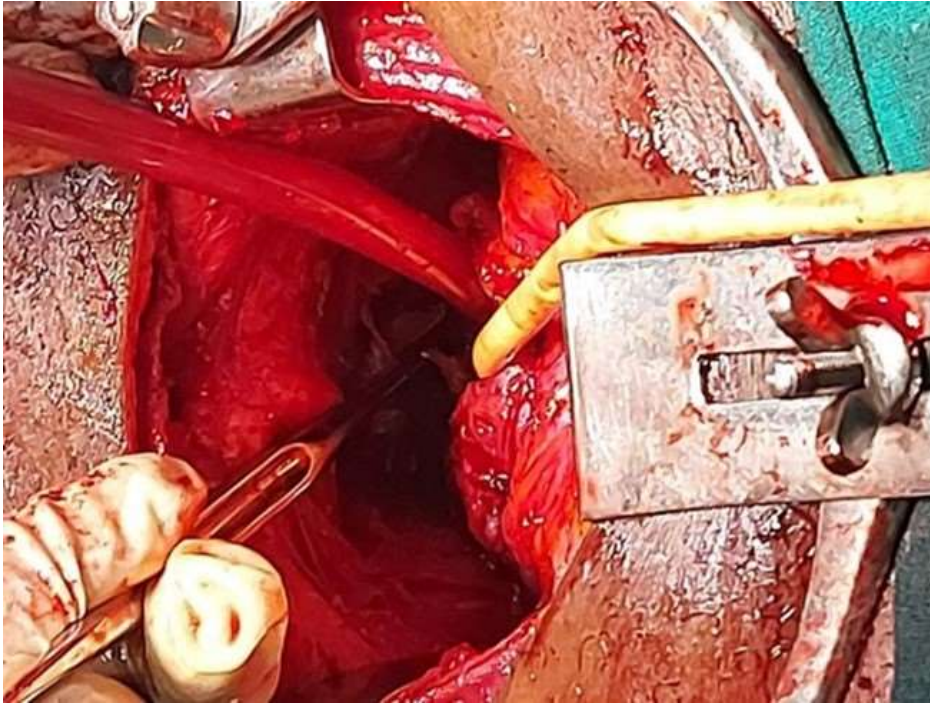


Figure 2: Final Intraoperative photograph of radical prostatectomy

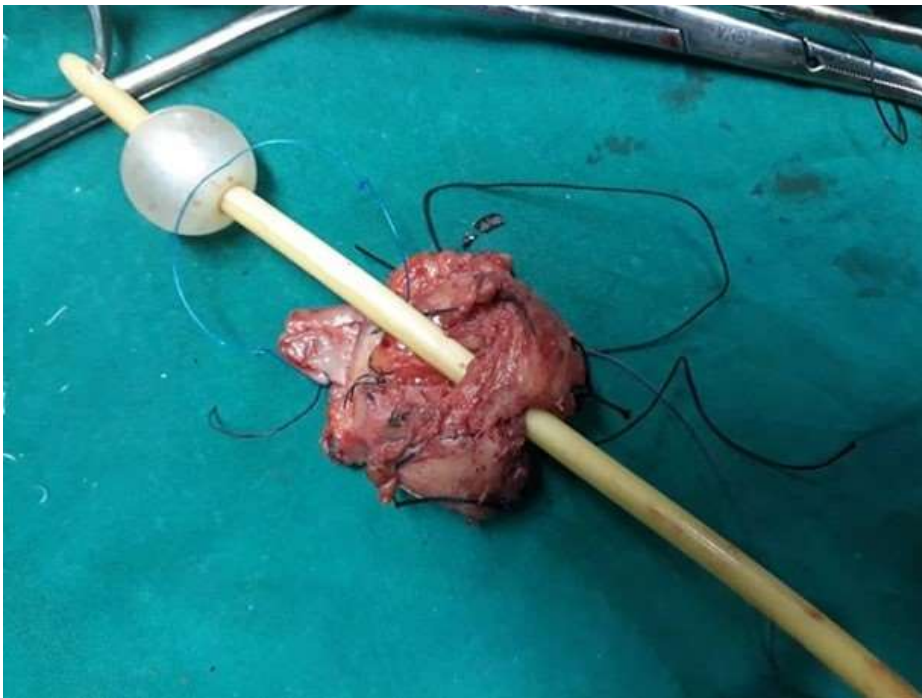


Figure 3: Clinical photograph of excised prostate

#### DISCUSSION

This case is noteworthy because it was the first radical prostatectomy performed in UBTH. It was significant in that the gradually increasing number of new cases diagnosed can now be offered the

option of open radical retropubic prostatectomy with satisfactory outcome.

Prostate cancer in sub-Saharan Africa may be gravely underestimated due to lack of screening, lack of access to healthcare, genetics, lifestyle, and environmental factors (Rebbeck et al., 2013,

Osaghae,2020). Hence more patients present with advanced prostate cancer when compared to developed nations, where about 85% present with localized diseases (Rebbeck et al., 2013; Cassell et al., 2019).

With more awareness and availability of PSA testing and transrectal ultrasound-guided prostate biopsy, there is increasing trend towards earlier presentation and diagnosis of organ-confined prostate cancer when cure is possible. The options for treatment include observation, active surveillance, open radical prostatectomy (gold standard) and radical radiotherapy with or without concomitant treatment with anti-androgens (Rebbeck et al., 2013; Cassell et al., 2019; Osaghae, 2020).

To determine prognosis and treatment options, newly diagnosed cases of prostate cancer should be stratified into risk groups based on PSA, clinical stage digital rectal examination, grade group, amount of cancer on biopsy cores, PSA density and imaging characteristics (Sanda et al., 2017, Mohler et al., 2019, Osaghae, 2020). Consequently, our index case was categorised as high-risk disease.

For high-risk prostate cancer patients, staging abdominopelvic CT scans/MRI are recommended along with a bone scan to exclude cases that are locally advanced or metastasized (Sanda et al., 2017; Cassell et al., 2019; Osaghae, 2020). There was no evidence of local spread or metastatic disease in the patient.

#### **CONCLUSION**

Radical prostatectomy was successfully performed in UBTH. With careful patient selection, available expertise and skill, open radical prostatectomy can be performed safely in resource limited settings.

The long-term outcomes of this index case and accumulated experiences from radical prostatectomy in UBTH will be reported in due course.

#### **REFERENCES**

- Cassell A, Yunusa B, Jalloh M, Mbodji MM, Diallo A, Ndoye M, Kouka SC, Labou I, Niang L, Gueye SM (2019). A Review of Localized Prostate Cancer: An African Perspective. *World J Oncol*; 10:162-168.
- Mohler JL, Antonarakis ES, Armstrong AJ, D'Amico AV, Davis BJ, Dorff T, Eastham JA, Enke CA, Farrington TA, et al., (2019). Prostate cancer, version 2.2019, NCCN clinical practice guidelines in oncology. *Journal of the National Comprehensive Cancer Network*, 17(5):479-505.
- Osaghae S (2020). Update of the management of prostate cancer in West Africa 2019. Consensus working document. *West Afr J Med*; 37(2):159- 172.
- Rebbeck TR, Devesa SS, Chang BL, Bunker CH, Cheng I, Cooney K, Eeles R. et al (2013). Global patterns of prostate cancer incidence, aggressiveness, and mortality in men of African descent. *Prostate Cancer*; 2013:560857.
- Sanda MG, Chen RC, Crispino T, Freedland S, Nelson MD, Reston J, Rodrigues G, Sandler HM, Taplin ME, Cadeddu JA, (2017). Clinically localized prostate cancer: AUA/ASTRO/SUO guideline. *Risk*, 6, p.27.