



Research Paper

Review of The Management Modalities Instituted In Men With Histopathologically Confirmed Prostate Cancer Attending A Tertiary Health Center In Aba South-Eastern Nigeria.

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ABSTRACT

Prostate cancer is the most common cancer among men of African Ancestry.

There is an increasing incidence of this disease with increasing morbidity and mortality. The objective of this study was to review the pattern of acceptance of the primary treatment protocols and the factors that may contribute to patient's choice.

This study was a retrospective study spanning 8 years from January 2015 to December, 2023.

202 cases were histopathologically confirmed prostate cancer from men aged between 40 to 100 years median age was 65 years, with a mean age of 69.5 (variance=6.9) and all were adenocarcinoma.

Out of the 202 cases, 160 (79.2%) were at the metastatic stage while 30 (14.9%) were at locally advanced stage giving a total of 190(95.1%) with advanced disease while 12(5.9%) were organ confined cases.

Out of the 160 metastatic cases, only 120 (75%) received treatment.

80 out of the 120 who received treatment had bilateral total orchidectomy as a first line treatment. A high number of those metastatic diseases were found in the low socio-economic class and low educational class.

Conversely, all the patients with organ confined disease who had treatment were found in the high socio-economic and high educational class. Poverty and ignorance may have contributed greatly to late presentation and choice of treatment modality.

KEY WORDS

Prostate cancer, clinical stage, socio-economic and educational class, treatment modality and Aba.

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I. INTRODUCTION:

Prostate cancer is the most common non-cutaneous cancer in the U.S.A. However in men of African Ancestry, the incidence is high and it runs a more aggressive course with greater morbidity and modality.

In Nigeria, most of the cancers present at an advanced stage (Mohammed and Mohammed 2011).

PSA is the only classified biomarker. A habit of routine serial PSA testing is the only measure to detect the disease at an early stage.

However low socio-economic state and poor education are factors contributing to poverty and ignorance which in turn militate against the practice of routine PSA Test, thus seeing most of the patients at an advanced stage of the disease with overt clinical signs and symptoms.

The treatment modalities predicated on the stage at presentation.

Metastatic stage is one with overt clinical presentation with metastases to distant parts of the body confirmed after investigative protocols such as plain X-ray, ultrasound, bone scan, CT scan and MRI Scan. The primary treatment modality for metastatic patients is the Androgen Ablation Therapy.

A locally advanced disease is one found to be extra prostatic but limited to a short distance from the prostate such as peri-urethral site and seminal vesicle. The primary modality of treatment is hormonal therapy immediately followed by radiation therapy and then continuing hormonal therapy.

An organ confined disease is one after investigative protocol is found to be intra-prostatic with no extra-capsular extension.

The options of treatment of an organ confined disease include radical prostatectomy, radical radiotherapy, watchful waiting and active surveillance. The choice of treatment depends on:

- ❖ Patients' choice.
- ❖ Risk stratification of the cancer.
- ❖ Age.
- ❖ Presence of medical co morbidities.
- ❖ Adverse conditions associated with each treatment options.

In our study, the few patients with organ confined disease were managed by hormonal therapy immediately followed by curative radiotherapy.

II. METHODOLOGY

This study was a retrospective review of all the histopathologically confirmed cancers within an 8 year period from January 2015 to December, 2023.

Their case files were withdrawn and essential information obtained including age, histopathology results, staging investigation results, modalities of treatment, socio-economic and educational indices.

INCLUSION CRITERIA

Patients with histopathologically confirmed prostate cancers who underwent investigative staging and counseling whether treated or not were part of this study.

EXCLUSION CRITERIA

Patients who had clinical diagnosis of prostate cancer and could not afford prostate biopsy and those who had biopsy and were never seen after that were excluded from this study.

III. RESULTS

This is a retrospective study done between January 2015 and December, 2023, aimed at analyzing the modalities instituted in men with prostate cancer amongst men in Aba, South Eastern Nigeria.

(n=202) cases of prostate cancer were histopathologically confirmed. Patients were aged between 40 to 100 years, median age was 65 and mean age was 69.5 years (variance =6.9) + or_ 3SD. These men had complete investigative staging of their cases and underwent counseling. Of the 202 cases, 143 (70.8%) presented themselves for treatment.

Table 1 shows the age group most affected, with the highest number of cases between age range (71-80 years), constituting (38.6%) of the population. Following this was ages 61-70, which constituted about (36.7%)

Table 2 shows the clinical stage at presentation and diagnosis. Of the 202 cases, 160 (79.2%) were at metastatic stage, followed by 30 (14.9%) at locally advanced stage. Only 12 (5.9%) were organ confined.

Table 3 shows the number of patients that reported for treatment. Of the 202 patients, 143 received treatment of which 120 were at the metastatic, 18 were locally advanced with only 5 organ confined.

Table 4 shows the different modalities of treatment offered the patients. 80 (66.6%) out of the 120 in the metastatic stage had surgical castration (Bilateral Total Orchiectomy) while 30 (25%) had medical castration (Luteinizing Hormone Releasing Hormone - LHRH Analogues) and 10 (8.3%) had Androgen Receptor Blockers. Surgical castration remained the mainstay of treatment in these patients.

Table 5 shows the socio-economic pattern seen among the patients. Most of the patients especially those who presented in advanced stage were in the low socio-economic class. This may have contributed to their late presentation. Conversely, all the patients who came in the organ confined stage were of the high socio-economic class. These men may have been conversant with serial PSA Testing to detect their cancer at an early stage.

Table 6 shows the educational status of the patients. Most of the patients in the advanced stage of disease had secondary education and below. All the patients in the organ confined stage had post-secondary education.

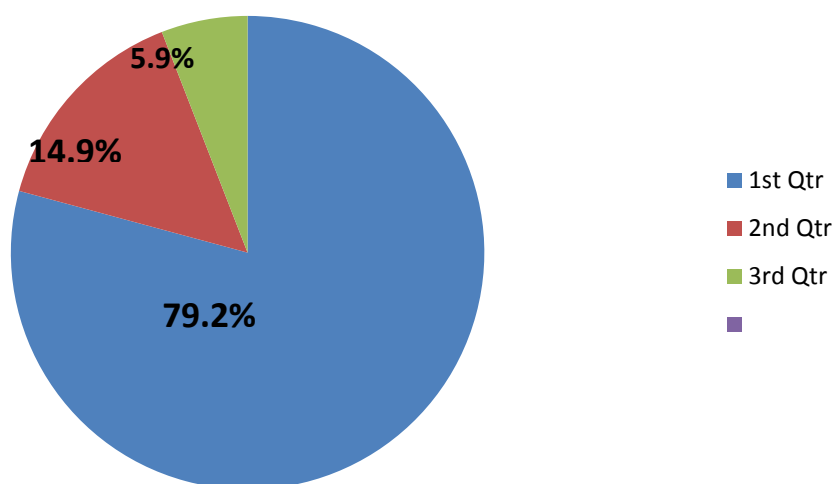
TABLE 1 – AGE GROUP/RANGE CHARACTERISTICS OF THE CASES

S/N	AGE GROUP	NUMBER	PERCENTAGE
1.	40 – 50 years	3	1.5%
2.	51 – 60 years	16	7.9%
3.	61 – 70 years	74	36.7%
4.	71 – 80 years	78	38.6%
5.	81 – 90 years	28	13.9%
6.	91 – 100 years	3	1.5%
	TOTAL	202	100%

TABLE 2 – SHOWING CLINICAL STAGE AT PRESENTATION AND DIAGNOSIS

S/N	CLINICAL STAGEU	NUMBER	PERCENTAGE
1.	METASTATIC STAGE	160	79.2%
2.	LOCALLY ADVANCED STAGE	30	14.9%
3.	ORGAN CONFINED STAGE	12	5.9%
	TOTAL	202	100%

FIG. 1. SHOWING THE CLINICAL STAGE AT PRESENTATION



Out of the 202 cases, 160(79.2%) were in the metastatic stage while 30 (14.9%) were in the locally advanced stage and 12 (5.9%) were in the organ confined stage. Total number of cases in the advanced stage which includes metastatic and organ confined disease was 190 (94%).

TABLE 3 – SHOWING THE ACTUAL NUMBER OF PATIENTS TREATED AND UNTREATED

S/N	CLINICAL STAGE	TOTAL NO	NO TREATED	PERCENTAGE	NO NOT TREATED	PERCENTAGE
1.	METASTATIC	160	120	75%	40	25%
2.	LOCALLY ADVANCED	30	18	60%	12	40%
3.	ORGAN CONFINED	12	5	41%	7	58%

TABLE 4 – SHOWING THE MODALITIES OF THE FIRST LINE TREATMENT

S/N	CLINICAL STAGE	TOTAL NO	B.T.O.	LHRH ANALOGUES	ANDROGEN RECEPTOR BLOCKERS
1.	METASTATIC	120	80 66.6%	30 25%	10 8.3%
2.	LOCALLY ADVANCED	30	20 66.6%	10 33.3%	-
3.	ORGAN CONFINED	5	-	5 100%	-

TABLE 5 – SHOWING THE SOCIO-ECONOMIC STATUS OF THE PATIENTS

S/N	CLINICAL STAGE	LOW	INTERMEDIATE	HIGH	TOTAL
1.	METASTATIC	132 82.5%	16 10%	12 7.5%	160
2.	LOCALLY ADVANCED	20 66.6%	5 16.6%	5 16.6%	30
3.	ORGAN CONFINED	-	-	5 100%	5

TABLE 6 – SHOWING THE EDUCATIONAL STATUS OF THE PATIENTS

S/N	CLINICAL STAGE	PRIMARY & LESS	SECONDARY	POST-SECONDARY	TOTAL
1.	METASTATIC	90 56.25%	45 28.12%	25 15.6%	160
2.	LOCALLY ADVANCED	15 50%	10 33.3%	5 16.6%	30
3.	ORGAN CONFINED	-	-	5 100%	5

IV. DISCUSSION:

Prostate cancer has shown higher incidence, morbidity and mortality among men of African ancestry.

Most of the patients, due to ignorance and poverty present at an advanced stage of the disease with dire consequences.

Ekeke et al in their work in Port-Harcourt in 2012 had 294 histopathologically confirmed cases but 216 (73.5%) were analyzed. 95% of the patients presented at an advanced stage. In our study, out of the 202 cases, 160 (79.2%) were presented in the metastatic stage while 30 (14.9%) presented in the locally advanced stage.

A total of 190 (94%) presented in the advanced stage of the disease similar to the work in Port-Harcourt.

Maarten Bosland et al in their work in 2023 on potential new approaches to prostate cancer management in resource limited countries in Africa, found out that most prostate cancers are not detected in Africa until at an advanced stage, and an Androgen Ablation Methods including orchidectomy still offer feasible and affordable approaches to prolong survival and sustain reasonable quality of life. In our study, we had similar results. Most of the patients were managed primarily with Androgen Ablation Methods and had consolidation with radiation therapy to those who could afford it.

Bahaba Marima et al in their work in South Africa on prostate cancer disparities and management in Southern Africa – insight, practices, norms and values found out that men of African ancestry particularly in South Africa have shown higher prostate cancer mortality rates and that extrinsic factors such as socio-economic factors, educational level, income level, geographical location and race are contributory to disease outcome.

Bashir Yunusa et al in their work in 2019 on management of advanced and metastatic prostate cancer – a need for Sub-Saharan guidelines found out that the management of metastatic cancer is challenging. The most efficient approach in the region is surgical castration. Medical castration was found to be expensive and often unavailable.

These findings were in keeping with our findings in Aba.

The mainstay of management was Androgen Ablation Therapy with surgical castration (Bilateral Total Orchiectomy) leading. Socio-economic and educational factors were grossly contributory to the choice of treatment modality. Patients found the medical castration method expensive. The Androgen Receptor Blocking agents were mainly used by those who could not afford the other methods.

V. CONCLUSION

Prostate cancer is the most common cancer in Aba, South-Eastern Nigeria.

Most of the patients present at an advanced stage of the disease. Androgen Ablation Therapy remains the leading method of primary treatment modality.

Socio-economic, educational factors were contributory to the choice of treatment modality. Ignorance and poverty contributed greatly to the late presentation of cases.

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