

FEAR OF PROSTATE BIOPSY: A LIMITATION IN THE MANAGEMENT OF PROSTATE CANCER

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ABSTRACT

Background: The incidence of prostate cancer is increasing in the country and now constitutes 11% of all male cancers. For diagnosis of prostate cancer, a histological diagnosis is necessary and this requires that a prostate biopsy be performed but patients may not readily accept this invasive procedure.

Methods: A 2-year retrospective study was carried out in Baptist Medical Centre, Eku, Delta State from January 1st 2004 to December 31st 2005; data were collected from case notes of patients who had serum prostate specific antigen (PSA) done to review the response of patients to the offer of prostate biopsy after an elevated serum prostate specific antigen result.

Results: There were 65 patients aged between 48years to 97years, mean age was 71years. 45 patients were offered prostate biopsy based on elevated serum prostate specific antigen (PSA) and/or findings on digital rectal examination (DRE). Only 12 (26.67%) accepted and of these, 4 (33.33%) had a histological diagnosis of adenocarcinoma of the prostate.

Conclusion: Our study has shown that majority of symptomatic prostate cancer patients refuse biopsy regardless of adequate counseling.

Key Words: Prostate biopsy, digital rectal examination, prostate-specific antigen, prostate cancer.

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INTRODUCTION

Prostate cancer has assumed the number one position in Nigerian male cancers constituting 11% of all male cancers¹. Various authors in the country have reviewed the epidemiological and clinicopathological features of prostate cancers and all agree that the incidence is increasing and that majority are still presenting with late disease²⁻⁴. So the management of prostate cancer in our environment is the control of advanced disease and for this to be done a definite histological diagnosis must be made and this requires a biopsy. We looked into the acceptance rate of patients offered prostate biopsy after an elevated PSA result and/or abnormal DRE findings for this may be a limiting factor in the management of prostate cancer in our environment.

MATERIAL AND METHODS

In Baptist Medical Center, Eku (BMCE), patients with symptoms referable to the prostate gland are usually sent for a serum prostate specific antigen (PSA) screen before a digital rectal examination (DRE) is done to characterize the prostate gland. Those with enlarged prostate with benign features

and a normal PSA result (<4ng/ml) are usually counselled and offered transvesical prostatectomy while those with elevated PSA result (>4ng/ml), malignant features on digital rectal examination and/or symptoms of malignancy are counselled and offered sextant prostate biopsy under digital guidance with a trucut needle, ensuring that any other nodular area is also include in the samples sent. With a histological diagnosis of prostate cancer they are counselled for and offered bilateral orchidectomy and placed on flutamide 250mg 8hrly. For this study, we collected the names of all patients who had PSA done between January 1st 2004 and December 31st 2005 inclusive and subsequently retrieved and analyzed their case notes and cards. The major presenting symptoms, findings at digital rectal examination, result of PSA screening, whether or not they were offered prostate biopsy, those that had the biopsy done and the histology result were collected and analyzed.

RESULTS

There were 65 patients, ages ranged between 48 years to 97 years, mean age was 71 years, 32 presented with mostly obstructive symptoms, 16 with most irritative symptoms, 6 with haematuria and 11 with metastatic symptoms. On digital rectal examination, 2 glands

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were assessed as normal, 38 as enlarged with benign features while 25 were assessed as enlarged with malignant features. The age/PSA distribution is shown in table 1, and the finding at digital rectal examination is compared to the PSA result in table 2. 45 patients were offered prostate biopsy: 1 patient with normal finding on DRE but with PSA >10ng/ml, 19 with benign features but with PSA >10ng/ml and all 25 with malignant features regardless of PSA result. Only 12 (26.67%) consented and had biopsy done, 1 with normal prostate on DRE but elevated PSA (histology was chronic non specific prostatitis), 6 with benign features on DRE but elevated PSA (histology was benign prostatic hyperplasia [BPH] and 5 with malignant features on DRE (1 had histology of BPH and 4 (33.33%) had histology of adenocarcinoma of the prostate.

The patient with malignant features on DRE but a histological diagnosis of BPH was counselled and referred to a teaching hospital for a transrectal ultrasound guided biopsy. The other 4 patients had bilateral orchidectomy and were placed on tabs flutamide and are still alive at the time of writing this paper.

Table 1: Age/PSA Distribution.

Age/PSA	0-4ng/ml	4.1-10.0ng/ml	>10.0ng/ml	Total
41-50	3	0	0	3
51-60	1	0	5	6
61-70	6	6	14	26
71-80	3	7	11	21
81-90	1	0	5	6
91-100	0	1	2	3
Total	14	14	37	65

Table 2: DRE/PSA Distribution.

PSA Result	0-4ng/ml	4.1-10.0ng/ml	>10ng/ml	Total
DRE Findings				
Normal	1	0	1	2
Benign	9	10	19	38
Malignant	4	4	17	25
Total	14	14	37	65

DISCUSSION

This study is the first to look into patients' refusal of prostate biopsy as the possible limiting step in the management of prostate cancer in our environment. It had been reported that prostate biopsy was a limiting step in the screening for prostate cancer in South Africa with only 19% of blacks in a screened population with a PSA=4.0ng/ml accepting to have a prostate biopsy done⁵. Ukoli et al reported that none of their screened Nigerian population, after adequate counseling accepted to go for a prostate biopsy⁶ and adduced that this was due to the fact that they had no symptoms and saw no need to spend hard earned money on the procedure. They also postulated that this might be due to an "irrational morbid fear of

impotence following procedures around the anorectum", fear of the diagnosis and of the possible complications of the procedure. The possibility that this fear could also arise in a population coming with symptoms for treatment in a hospital has not been previously addressed. Mikinen et al⁷ compared the acceptability of prostate biopsy between a screened population and hospital-referred symptomatic patients in Finland and found no difference in the acceptance rates, with 82% of screened population and 86% of symptomatic patients willing to undergo a repeat biopsy if necessary. This may be due to the increased level of education and awareness of prostate cancer in that environment and Wilkinson et al⁸ had shown that an hour of dedicated seminar on the topic will increase awareness and knowledge of prostate cancer from 26.0% to 73.3% amongst African-Americans with 63.1% volunteering to go for screening. This study had only a 26.67% compliance rate for prostate biopsy in symptomatic patients who had been adequately counselled for the procedure. All the patients requested time for consultations with members of their family and came back later to the clinic with 2 or more relatives who were also educated about the procedure but only 12 out of 45 finally consented for the procedure. This means that only 26.67% of patients suspected of having prostate cancer completed the investigations required for the management of prostate cancer. All patients in this study accepted to have a DRE performed and blood samples taken for serum PSA and this is in agreement with what Clarke-Tasker et al reported that while patients considered DRE embarrassing and uncomfortable they were not opposed to having the procedure done⁹. While it had been reported that the invasive nature of the detection procedures for cancer of the prostate is a barrier for African-American men to participate in studies¹⁰ this study shows that this is also the case in making a diagnosis in our environment. Many reports have looked into the accuracy of DRE, serum PSA, and transrectal ultrasonography and combination of these in predicting the results of biopsy¹¹⁻¹³ but a prostate biopsy is still needed to make a definitive diagnosis and therefore there is no substitute for the procedure. To ensure increased patients' acceptance to the procedure, wide spread and dedicated educational programs should be launched; Sellers and Ross¹⁴ reviewed the different possible programs and recommended that informed decision-making (IDM) should be adopted rather than a blanket screening. IDM involves informing the patients about risk and epidemiology of prostate cancer and about the benefits and limitations of prostate biopsy and the patients uses this information to decide to participate or not in the screening program. This could be adopted in the country, with the use of the mass media, a lot of people will be informed about

screening for prostate cancer and this will translate into an increased acceptance of diagnostic procedures.

In conclusion, this study has revealed that majority of our symptomatic patients with cancer of the prostate still refuse to have prostate biopsy done. While this work might be limited by the small study population and by the fact that it is a retrospective study, it provides a frame work for other studies to be done to determine if this problem exists in other centers in the country and elucidate the reasons for our patients refusing to have prostate biopsy done for them and what can be done to ameliorate the situation.

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