Survey of urologists on clients' demand for screening for prostate cancer in Nigeria

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Abstract

Objective: The aim of this article is to document the experience of urologists on clients' demand for prostate cancer screening among Nigerians.

Materials and Methods: The study is a cross-sectional evaluation of the urologists that attended the Fourteenth Annual Meeting and the Scientific Conference of the Nigerian Association of Urological Surgeons. A structured questionnaire was used to assess the estimated workload of the respondents, with reference to prostate cancer management, the stage proportion at the time of diagnosis, and the proportion of patients requesting for CaP screening. The data was analyzed using the SPSS version 15 statistical software.

Results: Twenty-two respondents completed and returned the questionnaire and formed the basis of further analysis. About 76.9% of the consultant urologists were also lecturers in their respective universities. They were all actively practicing and a majority of them, 76.9%, had up to 10 years experience as practicing urologists. The majority of the respondents managed between one and fifteen new patients with CaP every month, with 36.4% of them managing more than 15 new patients on an average every month. About 95.4% of all the patients seen by the respondents were diagnosed with advanced stages of the disease, while the remaining ones were incidental findings. About one half of the respondents attended to clients seeking for advice on CaP 'often' or 'very often,' while 40.9% attended to them 'occasionally,' with a mean of 4.67 clients seeking advice per month. The majority of respondents, 20 (22); 90.9%, were 'not aware' of any national guideline on CaP screening.

Conclusions: A majority of practitioners affirmed that patients with prostate cancer present late. The mean number of patients requesting for screening for prostate cancer per month, per respondent, for CaP, is still low. It is the authors' belief that the trend may not change until there is an appropriate effort at health education, to enlighten the populace.

Key words: Prostate cancer, demand, cancer, prostate, screening, urologist survey

Introduction

Cancer of the prostate (CaP) is the most frequently diagnosed cancer among men in the United States.[1] Several studies have documented a progressive increase in the incidence of CaP in Nigeria and the West African sub-region in recent times, and different reasons have been adduced for this trend.[2-6]

The introduction of Prostate-Specific Antigen (PSA), in addition to Trans-Rectal Ultrasound (TRUS) and other circulating biomarkers, has revolutionized CaP screening, and these have been reported to have resulted in early detection,

increased incidence, and improved survival, following the management of CaP in many parts of the world.[7]

The prognosis of CaP depends on the stage at diagnosis, the grade of the tumor, the biological behavior of the malignant cells, and the modalities of treatment. In our environment most patients often present very late and the treatment options are limited; most often the management is palliative.[2-6] The

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impact of advancements in technology and molecular biology has not reflected in both the stage at diagnosis as well as the management of prostate cancer in our setting.[2-6]

We set out to survey the experience of urologists on the demand for prostate cancer screening in Nigeria; which we hope may reflect the awareness of cancer of the prostate and the use of technological advancement among our populace.

Materials and Methods

The setting of the study was the Annual General Meeting and Conference of the Nigerian Association of Urological Surgeons (NAUS) that took place from 26 to 29 November, 2008, at Kwara Hotels, Ilorin, Kwara state, Nigeria. A structured questionnaire was used to assess the estimated workload of the respondent with reference to the management of cancer of the prostate, the stage proportion at the time of diagnosis, and the proportion of patients requesting a CaP screening.

Results

Twenty-two respondents, comprising thirteen consultant urologists and nine specialist registrars, completed and returned the questionnaire and formed the basis of further analysis. All respondents were males, with a majority of them, 63.6%, in their fourth decade of life [Table 1].

Out of the consultant urologists, 10 (of 13), representing 76.9%, were also lecturers in their respective universities. They were all actively practicing and a majority of them, 76.9%, had up to 10 years experience as practicing urologists. Of the nine specialist registrars, five of them were half-way through their three-year senior residency training program.

The majority of respondents managed from 1 – 15 new patients with CaP per month, with 36.4% of them managing more than 15 new patients every month, on an average

Table 1: The age group frequency of the respondents

Age at last birthday	Frequency	Percentage
31 – 40	14	63.6
41 – 50	6	27.3
51 – 60	2	9.1
Total	22	100.0

Table 3: The stage-at-diagnosis of cancer prostate by the respondents

Stage at diagnosis	Frequency	Percentage
Incidental finding	1	4.5
Localized disease	-	-
Locally advanced	14	63.6
Metastatic diseases	7	31.8
Total	22	100.0

[Table 2]. About 95.4% of all the patients seen by the respondents were diagnosed at the advanced stage of disease, while the remaining ones were with incidental findings; essentially followed by prostatectomy for suspected benign prostate hyperplasia [Table 3].

About one-half of the respondents attended to clients seeking advice on CaP 'often' or 'very often,' while 40.9% attended to them 'occasionally,' with a mean of 4.67 clients seeking advice on CaP per month [Table 4]. A majority of the respondents, 20 (22), 90.9%, were 'not aware' of any national guideline on CaP screening.

Discussion

The rationale behind screening for cancer of the prostate (CaP), like any other cancer, is the detection of the disease at an early stage, when it is more likely to be curable. In addition to assisting in early detection, using the serum PSA could also predict the likelihood of CaP development in future.[8-10]

All the respondents, in the present survey, are actively practicing urologists, with a majority of them having greater than 10-years experience. A decade of experience in active practice in a region can be relied upon to give a dependable pattern that is representative of any disease, moreso, prevalent diseases like CaP. Although, it may yet be difficult to ascribe any objective reason for the increase in the incidence of CaP in our environment,[2-6] the average number of patients managed by the respondents per month, probably further affirms the already documented increase in the incidence of CaP.[2-4] In addition, the proportional distribution of cases at diagnosis agrees with the previously documented patterns,[2,3] with over 90% of the cases being seen at an advanced stage of the disease.

Table 2: Number of patients managed by the respondent for cancer of prostate per month

No. of patients	Frequency	Percentage
1 – 5	3	13.6
6 – 10	9	40.9
11 – 15	2	9.1
>15	8	36.4
Total	22	100.0

Table 4: The frequency of demand for advice from the respondents

Clients demand for advice	Frequency	Percentage
Very often	5	22.7
Often	6	27.3
Occasionally	9	40.9
Not usually	1	4.5
Very unusually	1	4.5
Total	22	100.0

Despite the adoption of screening for CaP in many parts of Europe and America, there still exist significant controversies; however, there was consensus of opinion that screening for CaP was beneficial. An incidence of 127 cases per 100,000 population has been documented in Nigeria;[2] this is comparable with other parts of the western world and thus screening of the population is paramount. Basically, the screening for CaP involves identifying the at-risk individual and performing one or all of the following procedures in them: A digital rectal examination (DRE), TRUS of the prostate, and serum PSA estimation.[8] A sextant prostate biopsy for histological appraisal is performed when indicated, for the final diagnosis.

The use of DRE was found to have an estimated cancer detection rate of one to two percent when used as a primary detection method in a study.[11] Furthermore, among those with detectable cancer using DRE, 48 – 85% already had an extraprostatic disease at the time of diagnosis; in addition to this, some men were not comfortable with DRE because they were embarrassed or fearful that the procedure may be painful.[12] The implication of the foregoing is that DRE alone cannot be readily relied upon for screening. To add to this, the inherent experience of examining a hard and nodular prostate of advanced disease in our setting may affect our experience with identifying a lesion of localized disease that is amenable to cure.

In a study in which the three modalities were combined, it was shown that DRE alone and TRUS alone would have missed 32 and 43% of CaP, respectively.[13] In the same study, serum PSA was found to detect CaP more accurately than DRE or TRUS and of the two-test combinations, serum PSA plus DRE had the highest sensitivity and specificity rates.[13] Based on the foregoing discussion and with limited availability of TRUS facility in many of our centers, it was very clear that serum PSA estimation would occupy a vital role in screening for CaP in our sub-region, like many places in the world.

In Nigeria, the availability of PSA testing was limited to about two decades ago, thus the diagnosis of CaP was based on DRE, serum estimation of the total, and prostatic acid phosphatase and needle biopsy.[2] At present there is free accessibility to different assay kits for the estimation of PSA in Nigeria, however, these have not had a significant impact on the stage-at-diagnosis of CaP as predicted by Osegbe *et al.*[2]

The forecast by Osegbe *et al.*,[2] with regard to the influence that serum PSA would have on the incidence and stage-shift at diagnosis, will be difficult to achieve in Nigeria in the near future. There is still no documented national guideline on CaP screening, as attested to by a majority (90.9%) of the respondents. This means that a nationally coordinated program of enlightening the populace to the menace of CaP is not in existence and this probably accounts for the

reason why almost one-half of the urologists attend to clients demanding for screening for CaP 'occasionally'; with a mean of 4.69 clients seeking advice per month.

There was evidence of an increasing incidence of cancer of the prostate with the majority still presenting at late stages of the disease. Despite the availability of PSA, the mean number of patients presenting for screening for CaP was still low. It is the authors' belief that the trend may not change until there is an appropriate effort at health education, to enlighten the populace.

In conclusion, the response from the practitioner seems to suggest a continuous increase in the incidence of CaP; and a majority of the cases still present in an advanced stage. There is a remarkable unawareness on the part of the populace to present for screening, which may not be unconnected with the absence of a national guideline on screening for CaP. The Nigerian Association of Urological Surgeons will have a prominent role to play in this advocacy.

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