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Management of Prostate Cancer at the Saint Jean De Dieu Hospital in Tanguieta

Gayito Adagba RA[1], Azakpa AL[1], Hodonou F[2], Djiepti JB[1,2], Aholou MAR[1], Laying Kalonga E[1,2], Gbotounou N[1], Miyanhouande CP[1], Amegble JD[2], Chamutu M[1,2], Megninou MUB[1], Osorio A[1], De Voghel M[1], Pampalone L[1], Boisnard O[1], Duchnycz L[1], Seynaeve S[1], Takpema J[1], Koutre C[1], Avakoudjo J DG[2]

¹ *General Surgery Department, Tanguiéta Zone Hospital, Tanguieta, Benin*
² *University Clinic of Urology-Andrology, National Hospital and University Center Hubert Koutoucou Maga (CNHU-HKM), Cotonou, Benin*

Abstract

Background: Prostate cancer is the most common urological cancer. In our regions, diagnosis is most often made late because of the lack of systematic screening and difficulties in accessing health care. **Objective:** To assess the management of prostate cancer at the Saint Jean de Dieu hospital in Tanguiéta. **Material and methods:** This was a retrospective and descriptive study carried out at the Tanguiéta area hospital in the general surgery department over a period of five years, between 1 January 2016 and 31 December 2020. All patients followed for prostate cancer were included in the study. **Results:** During the study period 45 patients were followed for prostate cancer. The average age of patients was 67 years. Suggestive signs were dominated by symptoms of the lower urinary tract. 66.64% of patients had a Gleason score ≥ 7. In cases where surgery was performed, the post-operative follow-up was simple in 80% of cases. **Conclusion:** Despite the management of prostate cancers in our context remains a great challenge.

Keywords: Prostate, Adenocarcinoma, Metastase.

INTRODUCTION

Prostate cancer is the most common urological cancer worldwide [1]. In Benin, it is the first urological cancer by its hospital prevalence [2]. It is discovered at an early or late stage [3]. In our region, it is most often diagnosed in a later stage [4]. The risk of death from prostate cancer is 3%, which places it in the order of severity of cancers after lung, breast, colorectal, stomach and pancreatic cancers [5]. Given the significant advances in the understanding of the biological mechanisms of prostate cancer and its metastatic evolution in recent years [6], it is urgent to take stock of where we are in the management of these patients with the single purpose of our study: to assess the management of prostate cancer at the Hospital Saint Jean de Dieu of Tanguiéta.

MATERIAL AND METHODS

This was a retrospective and descriptive study conducted at the Saint Jean de Dieu Zone Hospital in Tanguiéta. We analyzed the records of patients followed for prostate cancer in the general surgery department from January 1, 2016 to December 31, 2020, i.e. a period of 5 years. We retained as part of our study, any record of patient followed during hospitalization or in an ambulatory basis for prostate cancer labeled or not. The data collection was based on a standardized survey form and the parameters analyzed were: age, profession, clinical signs, paraclinical examinations with histology, the treatment, types of postoperative complications, hospital indicators, and mode of discharge.

RESULTS

During our study period, 45 patients were followed up for labeled and unlabeled prostate cancer. The mean age of the patients was 67 years with extremes ranging from 51 to 87 years. The most represented age group was "51-75 years" representing 82.22% of cases. Half of the patients were farmers (55.58%).

Among the lower urinary tract disorders, dysuria was the most dominant sign with 91.11% (Table 1).

*Corresponding author:
Dr. Gayito Adagba René Ayaovi
General Surgery Department, Tanguiéta Zone Hospital, Tanguieta, Benin
Email: gayito_castro@yahoo.fr

Table 1: Distribution of patients according to functional signs

Functional signes	Number of employees	Percentage (%)
Dysuria	41	91,11
VCUR	26	57,77
VIUR	3	6,66
Pollakiuria	37	82,22
Mictional Burning	2	4,44
Mictional Emergency	1	2,22
Hematuria	11	24,44
No functionial signs	1	4,44

The digital rectal examination revealed an increase in prostate volume in 55.55% of patients. It was suggestive of prostate cancer in 28.88% of patients. 53.33% of patients had a total PSA blood level above 100 ng/ml. The mean prostate volume was 99.82 ml with extremes of 28 and 300 ml. The anatomopathological nature of the tumor was confirmed in only 25 patients, or 66.66% of the suspected cases (Table 2).

Table 2: Distribution of patients according to the results of the anatomopathological examination.

Technique	Results	Number of Employees	Percentage (%)
Endo rectal	Adenocarcinoma	11	24,44
	NIP	1	2,22
	ASAP	2	4,44
Endoscopy	Adenocarcinoma	3	6,66
	NIP	1	2,22
	ASAP	1	2,22
HAA Piece	Adenocarcinoma	4	8,88
	NIP	1	2,22
	ASAP	1	2,22

For a better stratification, the Gleason score was calculated (Table 3).

Table 3: Distribution of patients who underwent anatomopathological examination according to Gleason score.

Gleason Score		Number of Employees	Percentage (%)
6 (3+3)		1	5,55
7	(3+4)	1	5,55
	(4+3)	2	11,11
8	(4+4)	3	16,66
	(3+5)	1	5,55
9	(4+5)	3	16,66
	(5+4)	2	11,11
Not realized		5	27,77

Complications included 15.55% renal failure, 57.77% uretero-pyelocalicial dilatation, 13.33% general health impairment, 11.11% anemia, and 37.77% urinary tract infection.

No MRI or scintigraphy were performed.

Therapeutically, androgen suppression using an anti-androgen (flutamide) was the protocol used in 64.44% of the patients, followed by bilateral orchiectomy (35.55%). 57.14% of the patients with preneoplastic and atypical lesions received close monitoring. The following table shows the different therapies used.

Table 4: Distribution of patients according to the management of obstructive disorders of the lower urinary tract.

Treatment	Number of Employees	Percentage (%)
Alpha blocker	20	44,44
Urethrovesical catheter	25	55,55
Cystostomy probe	2	4,44
TURP	9	20
HAA	15	33,33

For the cases that benefited from palliative surgery (53.33%), the postoperative course was simple in 80% of cases. The average hospital stay was 11.13 days with extremes ranging from 2 to 50 days. There were no registered cases of death after 6 months of follow up.

DISCUSSION

The epidemiological profile of our patients remains similar to the one of the literature [6,7].

The existence of functional manifestations during the time of prostatic cancer disease reflects a locally advanced or metastatic stage [6]. A suspicious digital rectal examination is associated with a higher risk of undifferentiated tumor and an indication for prostate biopsy regardless of the PSA value [8]. These are elements of great judgment value for us in our resource-limited setting where the absence of MRI or scintigraphy distorts correct stratification. In addition, the low socio-economic level of the patients prevents the realization of the minimal required exams such as the CT scan. These same facts explain the absence of workup to evaluate the extension of the disease in our patients. The functional signs in our study were largely represented by disorders of the lower urinary tract. This predominance of urinary disorders is also reported by Gueye et al [4]. Among those who presented extra-urinary signs, renal failure was in first position, followed by alteration of the general state of health and anemia. In the literature, extra-urinary symptoms are dominated by bone manifestations [6] and are explained by the fact that metastases in prostate cancers are mainly the bones [9]. The difference of findings between our study and literature could be related to a lower incidence of bone metastasis in our patients

Biopsy guidance can be systematized or targeted (coupled ultrasound and prostate MRI). For initial biopsies, the standard of 12 specimens is recommended, and in case of positive PI-RADS ≥ 3 (Prostate Imaging Reporting and Data System) the biopsy should be targeted [8]. In our context, ultrasound is used only for the evaluation of prostate volume and to search secondary lesions. Endorectal biopsies in our study were performed with digital guidance. This technique is not always reliable, which explains why only 18 patients were diagnosed with prostatic adenocarcinoma over 5 years.

On the anatomopathological level, Ndoye et al. showed that adenocarcinoma was the most frequent histological type with 25% of patients having a Gleason score of 7 to 10 [10]. The same finding was made in our study.

Prostate cancer is hormone sensitive. Androgen suppression combined with new generation hormone therapy or chemotherapy are indicated in advanced or metastatic stages. Androgen suppression can be surgical or medical [8]. In our context, for advanced or metastatic stages, traditional hormonal therapy (surgical castration) remains the first choice and for patients with preneoplastic lesions or atypical lesions, active surveillance is the first-line treatment. For Niang et al, surgical castration was the most used treatment in 70% of patients [6]. The use of bilateral orchiectomy (35.55%) in our context is explained by

its lower cost, in contrast to medical castration which is relatively expensive and poses problems of compliance in most cases. For the management of obstructive disorders of the lower urinary tract, urethrovesical catheterization followed by alpha-blockers and or high prostatic adenomectomy remain the most frequently used symptomatic treatment. This is a therapeutic attitude shared by many authors when faced with the same symptoms [6].

CONCLUSION

Despite the recommendations of pairs and the progress in urology, the management of prostate cancer in our context remains precarious because of the still limited diagnostic means and the inaccessibility to hormonal therapy, chemotherapy or radiotherapy. But despite all these difficulties, the results remain encouraging because the effort of an optimal management is made with the least complication and death rate.

Conflict of Interest

We declare that we have no conflict of interest.

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REFERENCES

1. Park S, Shinohara K, Grossfeld GD, Carroll PR. Prostate cancer detection in men with prior high grade prostatic intraepithelial neoplasia or atypical prostate biopsy. The Journal of urology 2001, 165(5): 1409-1414.
2. Ouattara A, Hodonou R, Avakoudjo JDG, Cisse D, Zango B, Gandaho I et al. Epidémiologie des cancers urologiques au centre national hospitalier universitaire Hubert Koutoukou Maga Cotonou, Benin. Analyse d'une série hospitalière de 158 cas. Progrès en urologie 2012, 22(5) : 261-265.
3. Rigaud J, Le Normand L, Karam G, Glemain P, Buzelin JM, Bouchot O. Facteurs pronostiques du cancer de la prostate traité par hormonothérapie de première intention. Progrès en Urologie 2002, 12 : 232-239.
4. Gueye SM, Jalloh M, Labou I, Niang L, Kane R, Ndoye M. Profil clinique du cancer de la prostate au Sénégal. African Journal of Urology 2004, 10(3): 203-207.
5. O'dowd GJ, Miller MC, Orozco R, Veltri RW. Analysis of repeated biopsy result within one year after non cancer diagnosis. Urology 2000, 55(4): 553-558.
6. Niang L, Ndoye M, Ouattara A, Jalloh M, Labou M, Thiam I et al. Cancer de la prostate: quelle prise en charge au Sénégal? Progrès en Urologie 2013, 23: 36-41.
7. Ruffion A, Dominque I, Terrier JE, Rozet F, Mongiat-Artus P, Ploussard G et al. Tumeurs de la prostate. In : Collège français des urologues. Urologie. Elsevier-Masson, Issy-les-Moulineaux, (2018), pp 219-251.
8. Rozet F, Mongiat-Artus P, Hennequin C, Beauval J-B, Beuzeboc P, Cormier L et al. Recommandation francaise du comitee de cancerologie de l'AFU-actualisation 2020-2022 : cancer de la prostate. Progrès en Urologie 2020, 3(30): 136-251.
9. Paule B, Cicco A. Les biphosphonates dans le traitement des métastases osseuses du cancer de la prostate. Progrès en Urologie 2001, 11(6): 1205-1212.
10. Ndoye M, Niang L, Gandaho KI, Jalloh M, Labou I, Gueye S. Cancer avancé de la prostate au Sénégal : Aspects diagnostiques à l'hôpital de Grand Yoff. Progrès en Urologie 2014, 24(5): 271-275.