Scientific Research Publishing

Open Journal of Urology, 2025, 15(9), 431-436
https://www.scirp.org/journal/oju
ISSN Online: 2160-5629
ISSN Print: 2160-5440

Pre-Hospital Use of Traditional African Phytotherapy: Evaluation and Impact on Patients Treated for Prostatic Tumor at CNHU-HKM of Cotonou in 2024

Fred Hodonou[1], Akim Kogui Douro[1], Jodel Glele[1], Magloire Dodji Yevi[2], Jean Sossa[1], Michel Agounkpe[1], Hadidjatou Ouake[1], Josué Avakoudjo[1]

[1]Clinique Universitaire d'Urologie-Andrologie, Centre National Hospitalier Universitaire Hubert Koutoukou Maga, Cotonou, Benin
[2]Unité d'Urologie-Andrologie, Centre Hospitalier Universitaire Départemental Ouémé-Plateau, Porto-Novo, Benin
Email: philrayglele@gmail.com

How to cite this paper: Hodonou, F., Douro, A.K., Glele, J., Yevi, M.D., Sossa, J., Agounkpe, M., Ouake, H. and Avakoudjo, J. (2025) Pre-Hospital Use of Traditional African Phytotherapy: Evaluation and Impact on Patients Treated for Prostatic Tumor at CNHU-HKM of Cotonou in 2024. *Open Journal of Urology*, **15**, 431-436.
https://doi.org/10.4236/oju.2025.159044

Received: June 17, 2025
Accepted: September 13, 2025
Published: September 16, 2025

Abstract

In Benin, the pre-hospital use of traditional phytotherapy is common. This study, conducted on patients treated at CNHU-HKM of Cotonou in the first quarter of 2024, aims to assess the existence of this practice and its influence on the diagnosis of these pathologies. Among the 32 patients included in the study, 15 (46.88%) had used phytotherapy before any medical consultation. Despite a diagnostic delay observed in 37.5% of the patients, no statistically significant correlation could be established between traditional phytotherapy and a delayed diagnosis. However, this study highlights the need for further in-depth research.

Keywords

Traditional Phytotherapy, Prostatic Tumor, Diagnostic Delay, CNHU-HKM, Benin, Urology

1. Introduction

In Benin, as elsewhere, prostatic tumors are among the most frequently encountered pathologies in urological practice [1]-[3]. Studies reveal a tendency toward late diagnosis, which significantly impacts patient management and prognosis [4] [5]. Various factors could explain this delay, among which is the pre-hospital use of traditional phytotherapy, which remains widely used in Africa [6] and Benin

[7], particularly for the treatment of prostatic diseases [8].

2. Objectives

To evaluate the use of traditional phytotherapy among patients treated for prostatic tumors at the CUUA of CNHU-HKM in Cotonou and assess its impact on potential diagnostic delays.

3. Study Method

This was a retrospective, analytical study conducted on patients who consulted at CNHU-HKM of Cotonou between January and March 2024 for a prostatic tumor.

Patients diagnosed with a prostatic tumor were identified using registries and consultation records. They were then interviewed by telephone using a pre-established questionnaire. Patients who did not give their consent to participate in the study, as well as those who could not be contacted, were not included in the study.

The studied parameters included age, diagnosis, time to seek medical care, and whether or not the patient had used traditional phytotherapy before a medical consultation.

Due to the lack of formal histological evidence in many records, the diagnosis of malignant prostate neoplasia was often based on clinical (digital rectal exam) and paraclinical arguments (total PSA, prostate MRI, and abdominal-pelvic CT scan).

The criteria for diagnosing a diagnostic delay varied depending on the type of prostatic tumor. For benign prostatic hyperplasia (BPH), the criteria included the occurrence of complications (complete or incomplete urinary retention, urinary infections, inguinal hernias related to dysuria, etc.) or the impact of the prostatic pathology on the upper or lower urinary tract. For prostate cancer patients, the criterion was a locally advanced or metastatic disease.

Data were processed and analyzed using EPI-INFO software. Qualitative variables are presented as frequencies, whereas quantitative variables are expressed as means ± standard deviations. Bivariate analyses were performed using the χ^2 (chi-square) test. From an ethical perspective, patient anonymity was maintained throughout the study. Informed consent for participation was obtained orally during telephone interviews, and only consenting patients were included in the study.

4. Results

During the study period, 122 patients were managed for prostatic tumors at the CNHU-HKM Urology Department. Of these, 36 refused to provide informed consent for participation, and 54 could not be reached with the contact information recorded in their medical files. This has left us with 32 consentant patients who constituted our study population.

The average age of patients was 63.19 years, ranging from 48 to 80 years. The most represented age group was 60 - 69 years, comprising 37.5% of the patients. The distribution of our patients by age group is exposed in **Table 1**.

Table 1. Distribution of patients treated for prostatic tumor at CNHU-HKM urology department by age group.

Age groups (years)	Number (n)	Percentage (%)
[40; 50[	02	06, 25
[50; 60[	10	31, 25
[60; 70[	12	37, 50
[70; 80[	05	15, 62
[80; 100[	03	09, 38

Regarding pathology, 26 cases of BPH and 6 cases of malignant prostate neoplasia were identified, demonstrating a clear predominance of benign tumors (81.25% of cases).

Based on the defined criteria, 12 out of the 32 patients (37.50%) experienced a diagnostic delay for their prostatic tumor. When analyzed by pathology (**Figure 1**), 26.92% of patients with BPH and 83.33% of those with malignant prostate neoplasia had a delayed diagnosis.

Among the complications associated with BPH, we identified complete urinary retention, urinary infections, bladder complications, and the failure of well-conducted medical treatment.

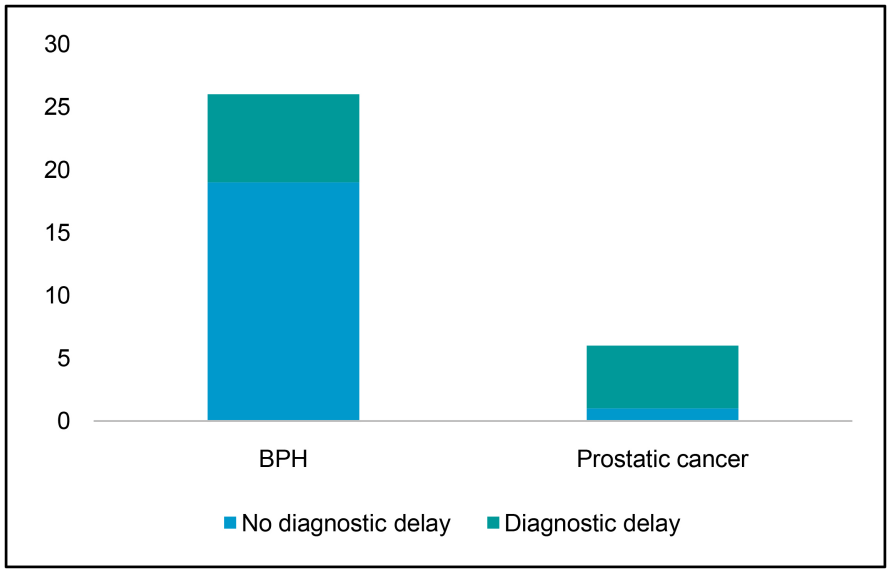

Figure 1. Proportion of patients treated for prostatic tumor with diagnostic delay.

Among the included patients, 15 (46.88%) admitted to using traditional phytotherapy before consulting a doctor. Among them, 11 (73.33%) sought phytotherapy within three months of experiencing lower urinary tract symptoms.

For most of these patients (46.66%), traditional phytotherapy had no notable effect on symptoms, leading to persistent symptoms. Others reported either wors-

ening symptoms (13.33%) or moderate symptom improvement in 40% of cases (Figure 2). However, in 100% of cases, this improvement was temporary, with symptoms recurring within 1 month to 6 years.

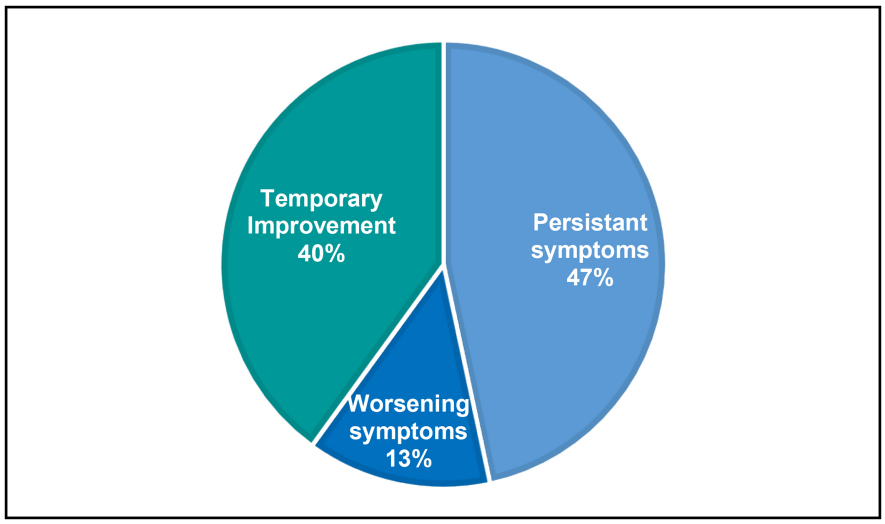

Figure 2. Distribution of patients with prostatic tumor under traditional phytotherapy based on symptom evolution.

Most patients did not know the names of the plants used in their remedies. However, most preparations were alcoholic macerations, with the solvent being locally produced alcohol (Sodabi) in all cases.

Finally, statistical analyses in Table 2 found no significant association between diagnostic delay and the use of phytotherapy (p = 0.927), its duration (p = 0.361), or the time before medical consultation (p = 0.061).

Table 2. Analysis of the association between diagnostic delay and phytotherapy use, duration, and consultation delay.

Variables	Categories	Diagnostic delay	No diagnostic delay	p-value
Phytotherapy use	No	5	10	0.927
	Yes	7	10	
Phytotherapy duration	≥6 mois	5	7	0.361
	≤6 mois	4	16	
Time to medical consultation	≥6 mois	12	3	0.061
	<6 mois	7	10	

5. Discussion

The fact that most patients were over 60 years old supports the understanding that prostatic tumors are diseases of older men. Our data align with findings from

other authors [1] [3].

Our results reveal a predominance of benign prostatic hyperplasia among the prostatic tumors treated at CNHU-HKM, consistent with literature data [3] [9] [10].

We found a significant proportion of patients who had used pre-hospital phytotherapy for treatment. This behavior, common in developing countries, has also been noted by Sehonou *et al.* [11]. It may be linked to socio-economic factors, and socio-cultural factors [12]-[14].

From a socio-cultural standpoint, illness in African tradition is viewed as both a spiritual and physical experience, rather than simply a medical condition. This belief often encourages patients to seek out traditional healers first, who combine herbal treatments with spiritual or mystical practices. Additionally, the limited awareness and knowledge surrounding conditions like prostatic tumors can further reinforce this initial dependence on traditional healing methods.

From a socio-economic perspective, traditional care is often more accessible and affordable, since costs are usually restricted to the remedies themselves. In contrast, modern medical care can be more expensive, involving consultation fees, diagnostic tests, and prescribed medications.

The proportion of delayed diagnoses in prostate cancer is comparable to those reported by Hounasso *et al.* [5] and Tengue *et al.* [15]. This observation highlights the need to strengthen awareness and education on prostate cancer.

Finally, the lack of a statistically significant association with pre-hospital phytotherapy use is reassuring but should be interpreted cautiously. Factors such as the urban study setting, where specialist access is easier, and the small sample size may explain this result. A larger-scale study with long-term follow-ups to observe he long-term health status and disease progression of patients using phytotherapy would be valuable. This would allow for a more accurate evaluation of the efficacy and potential adverse effects of phytotherapy in the treatment of prostatic tumors.

6. Conclusion

The pre-hospital use of traditional phytotherapy in the management of prostatic tumors remains underexplored in scientific research. Its consequences are not well understood but may have a real impact. Despite its limitations, this study provides a foundation for future investigations.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Sossa, J., Fanou, L., Hounto, Y.F., Yevi, D.M.I., Hodonou, F.J. and Avakoudjo, D.J.G. (2023) A Panorama of the Urological Diseases at the Former Military Teaching Hospital of Cotonou. *Open Journal of Urology*, **13**, 143-150. https://doi.org/10.4236/oju.2023.135018

[2] Ouattara, A., Hodonou, R., Avakoudjo, J., Cisse, D., Zango, B., Gandaho, I., *et al.*

(2012) Épidémiologie des cancers urologiques au Centre national hospitalier universitaire Hubert Koutoukou Maga Cotonou, Bénin. Analyse d'une série hospitalière de 158 cas. *Progrès en Urologie*, **22**, 261-265. https://doi.org/10.1016/j.purol.2011.12.003

[3] Diakité, M., Sissoko, I., Berthé, H., Kanté, M., Coulibaly, M., Traoré, B., *et al.* (2019) Pattern of Prostatic Tumors in the Urology Department of Point G Hospital. *Health Sciences and Disease*, **20**, 26-31.

[4] Hounnasso, P., Avakoudjo, J., Aouagbe Behanzin, H., Tandje, Y., Ouake, A., Alabi, M., *et al.* (2015). Aspects diagnostiques du cancer de la prostate dans le service d'urologie du CNHU-HKM Cotonou. *Uro-Andro*, **1**, 193-196.

[5] Pascal, H.P., Dejinnin Georges, A.J., Kolawalé Yde, S.F., Dossavi, K.M., Magloire, Y.D. and Alexandre, V. (2015) Clinical Stage Evaluation at Diagnosis of Prostate Cancer at Urology-Andrology Clinic CNHU-HKM Cotonou. *Open Journal of Urology*, **5**, 19-23. https://doi.org/10.4236/oju.2015.53004

[6] Manzambi, J.K. (2009) Les déterminants du comportement de recours au tradipraticien en milieu urbain africain: Résultats d'une enquête de ménage menée à Kinshasa, Congo. *Psychologie et Vie Nouvelle*, **7**, 3-17.

[7] Quiroz, D., Towns, A., Legba, S. I., Swier, J., Brière, S., Sosef, M., *et al.* (2014) Quantifying the Domestic Market in Herbal Medicine in Benin, West Africa. *Journal of Ethnopharmacology*, **151**, 1100-1108.

[8] Agboola, O.O., Ijimbili, S.B., Ofuasia, G.O., Anejo-Okopi, J., Wahedi, J.A. and Olowoyo, J.O. (2023) Prostate Cancer: Causes and Medicinal Plants Used in Africa for Twenty Years (2001-2021). *Pharmacognosy Journal*, **14**, 822-828. https://doi.org/10.5530/pj.2022.14.174

[9] Tolani, M., Khalifa, A. and Afolayan, A. (2020) Clinicopathological Characteristics of Benign Prostatic Hyperplasia and Prostate Cancer in a University Teaching Hospital in Nigeria. *Annals of Tropical Pathology*, **11**, 56-60. https://doi.org/10.4103/atp.atp_18_20

[10] Avakoudjo, J.D.G., Yevi, D.M.I., Saidou, D., Natchagande, G., Hodonou, F., Sossa, J., *et al.* (2019) Panorama des tumeurs urologiques au CNHU-HKM de Cotonou. *Bulletin de la Société Internationale d'Urologie*, **30**, 17-22.

[11] Sehonou, J., Atadokpedé, F., Azon-Kouanou, A. and Sossa, B. (2011) Recours préhospitalier à la médecine traditionnelle africaine pour dyspepsie à Cotonou. Prévalence et facteurs associés. *Journal Africain d'Hépato-Gastroentérologie*, **6**, 3-4. https://doi.org/10.1007/s12157-011-0334-7

[12] Patel, P.M., Sweigert, S.E., Nelson, M., Gupta, G., Baker, M., Weaver, F.M., *et al.* (2020) Disparities in Benign Prostatic Hyperplasia Progression: Predictors of Presentation to the Emergency Department in Urinary Retention. *Journal of Urology*, **204**, 332-336. https://doi.org/10.1097/JU.0000000000000906

[13] Benedict, M.O., Steinberg, W.J., Claassen, F.M. and Mofolo, N. (2023) Enhancing Public Awareness and Practice of Prostate Cancer Screening among African Men: A Scoping Review. *South African Family Practice*, **65**, e1-e6. https://doi.org/10.4102/safp.v65i1.5621

[14] Nyiramana, M.P. (2024) Epidemiology of Prostate Cancer in Africa: An In-Depth Review. *Research Invention Journal of Scientific and Experimental Sciences*, **4**, 24-30. https://doi.org/10.59298/rijses/2024/412430

[15] Tengue, K., Kpatcha, T. M., Botcho, G., Leloua, E., Amavi, A.K., Sikpa, K., *et al.* (2016) Profil épidémiologique, diagnostique, thérapeutique et évolutif du cancer de la prostate au Togo. *African Journal of Urology*, **22**, 76-82.