

## Operations for Urologic Malignant Tumors or Suspected Neoplasms in a Resource-Limited Setting: Last Decade Experience in Cameroon

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### ABSTRACT

*Within the framework of the treatment of cancer, surgery plays a key role. Urological cancer incidence is increasing and will become a more serious issue in the future. From 2000 to 2010, we decided to study epidemiological aspects of urological tumors operated at the Yaounde Central Hospital. We completed a descriptive and retrospective study during 10 years (2000-2010) in the urological unit of the Yaounde Central Hospital. Patients operated for malignancies or suspected malignancies were included. 943 patients have been operated for urological pathology. 223 patients (23.64%) presented a malignant tumor or suspected malignancy. The average age for both sexes was 64.77 years old. For women, it was 47.54 years old and for men, it was 64.52 years old. The sex ratio was (5.96). For women, the more frequent urological malignant tumor was that of the kidney (38%); whereas for men, the prostate cancer dominated the others locations (86%). Surgical castration has been performed in most patients with prostate cancer (95.81%). The minimally invasive surgery approach has not been performed. Endo-urology exists in our study site only since 2017. Robotics and laparoscopy are still non-existent. Establishing an efficient registry of cancer, encouraging the early diagnosis and improving the technical equipment can make a marked change in the surgical treatment of urological cancer in Cameroon.*

### Keywords

Cancer, Surgery, Robotics, Laparoscopy.

### Introduction

Within the framework of the treatment of cancer, surgery plays a key role [1-4]. Urological cancer incidence is increasing and will become a more serious issue in the future [5]. Prostate cancer, kidney cancer and bladder cancer are the more frequent urological cancers for men and women in many countries worldwide [6]. In central Africa, prostate cancer is the most frequent for men. This situation requires a careful study of urological cancers in our communities within a context where there is a severe lack of registry of cancer in Africa. We decided to study the epidemiological aspects of urological cancers at the Yaounde Central Hospital during the last ten years (2000 to 2010).

### Methodology

We completed a descriptive and retrospective study during 10 years (2000 to 2010, in the urological unit of the Yaounde Central Hospital. The Yaounde Central Hospital is located down town,

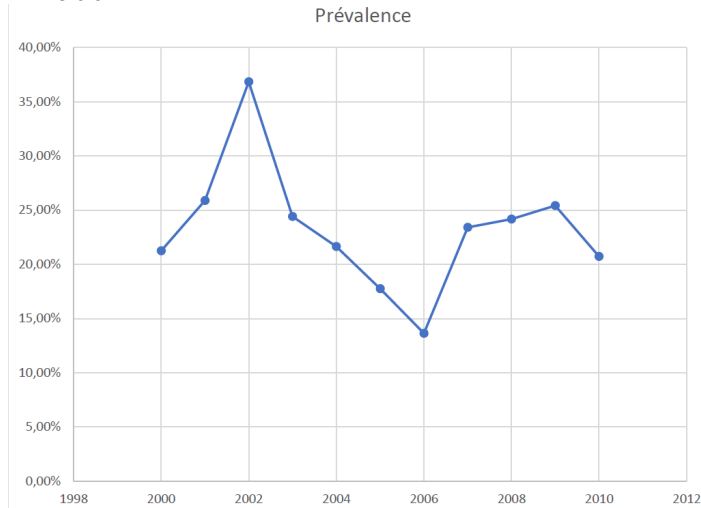
street 2.008 behind CENAME (Centrale Nationale de Médicaments Essentiels) and not far from the Messa camp sic. It was founded in 1933 and today, it is a second category health-care facilities. Patients operated for malignancies or suspected malignancies were included. The variables studied were age, sex, diagnosis, location of the tumor and type of intervention performed. Data has been collected and analyzed using Excel 2003 software and results have been presented as tables, figures and graphs developed from Excel software (Office 2003 version).

### Results

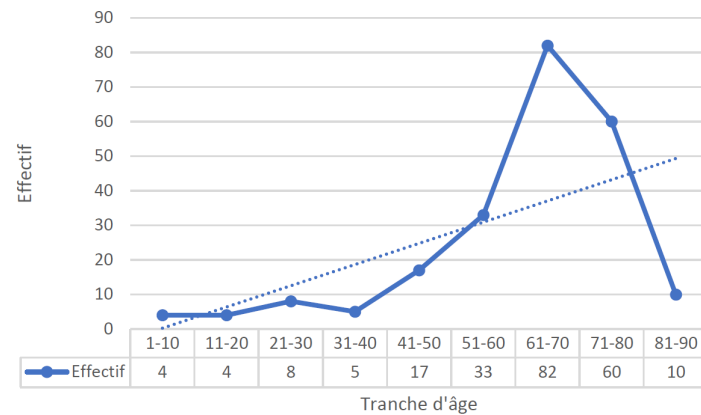
During the period of study, we identified 943 patients operated for urological pathology. 223 patients (23.64%) presented a malignant tumor or suspected malignancy, 30 patients (3.18%) had a pathology with a potential risk of malignant degeneration: cryptorchidism.

The average age in both sexes was 64.77 years old, with the extreme ages being 2 years old and 88 years old. For women, it was 47.54 years old and for men, it was 64.52 years old. Male

dominated with 191 men against 32 women. The sex ratio was thus 5.96.

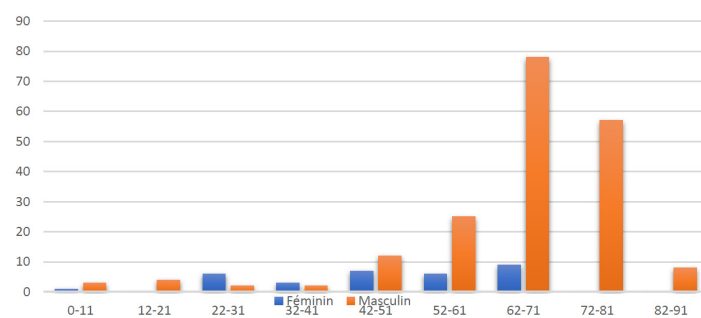


**Figure 1:** Evolution of the urological cancer incidence (2000-2010).



**Figure 2:** Number of cases based on the age range.

Incidence of tumorous pathology increases with age reaching the peak of 36.97% for the range 61-70 years old.



**Figure 3:** Number of cases based on the age and sex range.

For women, the more frequent urological malignant tumor was that of the kidney (38%), followed by bladder; whereas for men, the prostate cancer dominated the others locations (86%). Radical parametrectomy with node dissection has been performed in 10 patients (6.09%) and surgical castration in the rest of patients (95.81). Pulpectomy has been the privilege technique, representing 60.97% (n=100), followed by orchiectomy representing 26.82%

(n=44). Therapeutic abstention in 10 patients (6.09%). Kidney tumors ranks first among women and third among men. The tumor has been resectable by complete nephrectomy in almost all patients (94.73%) and unresectable in only one female patient (5.27%).

Location of the Tumour	Number (n)	Percentage (n)
Kidney	12	38
Bladder	10	31
Uterus	5	16
Uretere	2	6
Urethra	2	6
Adrenal	1	3
Total	32	100%

**Table 1:** Number of malignancy cases based on location in men.

Location of the Tumour	Number (n)	Percentage (n)
Prostate	164	86
Bladder	10	5
Kidney	7	4
Penis	5	3
Testicle	4	2
Abdominal wall	1	1
Total	191	100

**Table 2:** Number of malignancy cases based on location in women.

## Discussion

Urologic diseases can result in considerable morbidity, mortality and healthcare resource utilization., In 2013, 2.1 million kidney, bladder, and prostate cancers cases occurred worldwide, increasing 2.5-fold since 1990. Eighty-two percent of new cases in 2013 occurred in individuals aged 60 years and older. [7]

In our study, incidence of malignancies and suspected malignancies increases with age reaching the peak of 36.97% for the range 61-70 years old.

In Thailand, prostate, bladder and kidney cancers are 6th, 15th and 22nd most common cancers, respectively, in both males and females. [6] For the 3 last years, in Taiwan, the most frequent urological cancers were: Prostate cancer, bladder cancer and kidney cancer [8]. In women, the most frequent urological tumor was that of kidney (38%) followed by that of bladder (31%). In men, the prostate cancer dominated all other locations, representing 86%.

Given the later diagnosis for most cases, the curative treatment is hardly ever suggested. Radical prostatectomy with node dissection has been performed in 6.09% in our series. The minimally invasive surgery approach has not been performed. Endo-urology exists in our study site only since 2017. Robotics and laparoscopy are still non-existent.

Early diagnosis strategies and development of minimal invasive surgery, can make a marked change in the surgical treatment of urologic cancer in Cameroon.

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## Conclusion

Urologic cancer burden has increased globally amid population growth and aging. Establishing an efficient registry of cancer, encouraging the early diagnosis and improving the technical equipment can make a marked change in the surgical treatment of urologic cancer in Cameroon. Efforts to expand the global oncologic workforce and reduce preventable factors may lessen cancer disparities in developing countries.

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