

Urological Emergencies at Kara Teaching Hospital (Togo): Epidemiological, Clinical and Therapeutic Profile

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Abstract

Background: The urology department of the teaching hospital of Kara is the second urology department in Togo, after that of the teaching hospital Sylvanus Olympio, in Lomé the capital. It is a very young service, created less than 5 years ago. Urological emergencies were previously managed by general surgeons, for lack of urologists. The influx of patients with urological pathologies has increased with the arrival of urologists. The update on urological emergencies having been made in Lomé, we therefore wanted to take stock of urological emergencies at the teaching hospital of Kara. **Objective:** To describe the epidemiological, clinical, and therapeutic aspects of urological emergencies received at the teaching hospital of Kara. **Patients and Methods:** This was a descriptive study with retrospective data collection. The study took place in the urology department, and in the surgical emergency department of the teaching hospital of Kara, over a period of 18 months, from January 2021 to June 2022. The on-call medical team consisted of the intern in on-call medicine, and an on-call urologist, whom the intern called upon when he received a urological emergency. Pediatric urological emergencies were managed by the pediatric surgeon and were not considered in our study. The operating room register, the surgical emergency consultation register, the urology department consultation register, and the records of patients hospitalized in the urology department were used for data collection. The following parameters were studied: age, sex, type of urological emergency, and therapeutic management; epi info 7 software was used for data processing. **Results:** The average age of the patients was 52.5 ± 19.6 years with extremes ranging from 16 years to 102 years. Note that 57.7% of the patients were over 50 years

old. The sex ratio was 8.9. Urinary retention was the most common urological emergency in 47.7% (52) of cases; follow-up of infectious pathologies in 30.2% (33) of cases. Among the patients who had been seen for urinary retention, 84.6% (44) of the cases had presented with acute urinary retention. Urethral catheterization was the type of care most received by patients, in 30.2% (33) of cases; follow-up of medical treatment in 27.5% (30) of cases. The most common etiology of urinary retention was prostate tumours, in 71.1% (37) of cases, followed by urethral stricture in 15.3% (8) of cases. We also found in our series, traumatic emergencies in 10% of cases; these were traumatic urethral injuries, traumatic injuries of external genitalia, traumatic injury of bladder, and traumatic injury of kidney in respectively: 4.5% (5); 2.7% (3); 1.8% (2); and 0.9% (1) of cases. Torsion of the spermatic cord was found in 2.7% (3) of cases. **Conclusion:** Urine retention is the most common urological emergency at Kara University Hospital. They are most often found in elderly males. Urethral catheterization was the most common type of care.

Keywords

Urological Emergencies, Profile, Kara, Togo

1. Introduction

Urological emergencies occupy an important part of the activity of a urology department [1] [2]. They are diverse and varied and can be grouped into five main categories: infectious, traumatic, obstructive, genito-scrotal, and hematic [3]. The profile of urological emergencies can be different, depending on whether you are in one country or another [4]. In Togo, we have data on urological emergencies from the urology department of the teaching hospital Sylvanus Olympio in Lomé, the capital [1]. On the other hand, in Kara, a city located 400 km from Lomé, the urology department of the teaching hospital of KARA, the second in the country, created recently, does not yet have one. The aim of our study was to describe the profile of urological emergencies received at the teaching hospital of Kara.

2. Patients and Methods

This was a descriptive study with retrospective data collection. The study took place in the urology department, and in the surgical emergency department of the teaching hospital of Kara, over a period of 18 months, from January 2021 to June 2022. The on-call medical team consisted of the intern in on-call medicine, and an on-call urologist, whom the intern called upon when he received a urological emergency. Pediatric urological emergencies were managed by the pediatric surgeon and were not considered in our study. The operating room register, the surgical emergency consultation register, the urology department consultation register, and the records of patients hospitalized in the urology department

were used for data collection. The following parameters were studied: age, sex, type of urological emergency, and therapeutic management; epi info 7 software was used for data processing.

3. Results

The average age of the patients was 52.5 ± 19.6 years with extremes ranging from 16 years to 102 years. Note that 57.7% of the patients were over 50 years old. **Figure 1** shows the distribution of patients by age. The sex ratio was 8.9. **Figure 2** shows the distribution of patients according to sex. Urinary retention was the most common urological emergency in 47.7% (52) of cases; follow-up of infectious pathologies in 30.2% (33) of cases. Among the patients who had been seen for urinary retention, 84.6% (44) of the cases had presented with acute urinary retention. **Table 1** shows the distribution of patients according to the type of urological emergency. Urethral catheterization was the type of care most received by patients, in 30.2% (33) of cases; follow-up of medical treatment in 27.5% (30) of cases. **Table 2** shows the distribution of patients according to the type of care received in emergencies. The most common etiology of urinary retention was prostate tumours, in 71.1% (37) of cases; followed by urethral stricture in 15.3% (8) of cases. **Table 3** shows the distribution of patients seen for urinary retention according to etiology. As infectious diseases, we found in our patients: acute orchiepididymitis in 13.7% (15) of cases, acute prostatitis in 8.2% (9) of cases, gangrene of the external genitalia in 5.5% (6) of cases, and acute pyelonephritis in 2.7% (3) of cases. We also found in our series, traumatic emergencies in 10% of cases; these were traumatic urethral injuries, traumatic injuries of external genitalia, traumatic injuries of bladder, and traumatic injuries of kidney in respectively: 4.5% (5); 2.7% (3); 1.8% (2); and 0.9% (1) of cases. Spermatic cord torsion was found in 2.7% (3) of cases, with an average consultation time of 37 hours. All the patients received for torsion of the spermatic cord, had undergone an orchietomy, then a contralateral orchidopexy later.

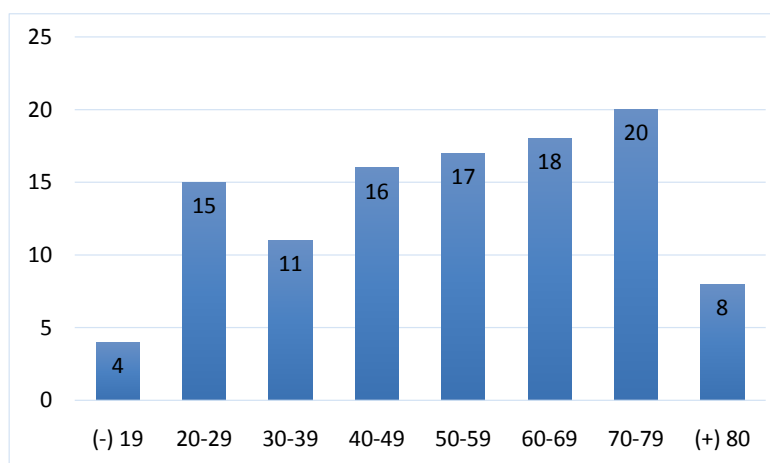


Figure 1. Distribution of patients by age.

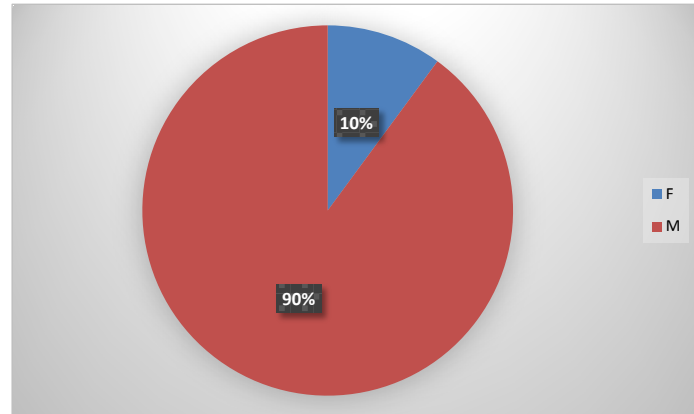


Figure 2. Distribution of patients according to sex.

Table 1. The distribution of patients according to the type of urological emergency.

Type of emergency	Frequency	Percent (%)
Nephritic colic	3	2.7
Hematuria	4	3.6
Bilateral ureteral obstruction	4	3.6
Infectious diseases	33	30.2
Priapism	4	3.6
Acute retention of urine	44	40.3
Chronic retention of urine	08	7.3
Torsion of the spermatic cord	3	2.7
Trauma	6	5.5
Total	109	100

Table 2. Distribution of patients according to the care given.

Treatment	Frequency	Percent (%)
Cavernospongious shunts	3	2.7
Circumcision	1	0.9
Cystorraphy	1	0.9
Suprapubic cystostomy	22	20.1
Necrosectomy	7	6.4
Néphrostomy	3	2.7
Orchiectomy	5	4.5
Vesico-ureteral reimplantation	1	0.9
Urethral catheter	33	30.2
JJ stent	3	2.7
Médical treatment	30	27.5
Total	109	100

Table 3. Distribution of patients seen for urinary retention according to causes.

Causes of urine retention	Frequency	Percent (%)
Phimosis	1	1.9
Urethral stricture	8	15.3
Traumatic urethral injury	4	7.6
Gynecological tumor	2	3.8
Prostate diseases	37	71.1
Total	52	100

4. Discussion

In our study, we recorded an average of 06 patients per month. This average is very low compared to Tengue [1] in Lomé, Tfeil [5] in Mauritania, Diallo [4] in Guinea, Fall [6] in Senegal, which found respectively 147 patients/year, 240 patients/year, 252 patients /year and 742 patients/year. This difference could be explained by the fact that the urology department of the teaching hospital of Kara is a very young department, which does not yet attract many patients; Kara being a semi-urban town, many patients do not always come to consult at the teaching hospital, given the difficulties that this entails transport from home to the teaching hospital sometimes difficult and very expensive, high cost of therapeutic care. Some patients therefore prefer to consult a health center or a traditional healer. It should also be noted that some, among the wealthiest of the inhabitants of Kara, sometimes prefer to go to Lomé, the capital, in the hope of having better therapeutic care.

In our study, the most represented age groups were that of 70 - 79 years, and that of 60 - 69 years, in respectively 18.3% and 16.5% of the cases. The average age was 52.5 years. These results are comparable to those of Diabaté [3] in Louga (Senegal), Tfeil [5], Diallo [4], Ouattara [6] in Burkina Faso, and Owon Abessolo [2] in Yaoundé who respectively found an average of age 59, 58, 56, 54, and 51. We thus agree with Tengue [1], that urological emergencies are often the prerogative of elderly subjects. These elderly subjects are often male, as evidenced by the results of the studies by Fall [6] and Diallo [4], which found a sex ratio of 20.3 and 16.3 respectively; the sex ratio in our study was 8.9.

Urinary retention was the most common urological emergency in our study with 47.7% (52) of cases. Acute urinary retention is the most common urological emergency in sub-Saharan Africa [1] [6] [7]. The absence of consultation at the dysuria stage, probably due to the lack of financial means, and to consultations with traditional healers, could explain this high rate of acute urinary retention [1]. In our study, among the patients with urinary retention, 84.6% had acute urinary retention. However, in the West, particularly in France, acute urinary retention ranked second among urological emergencies after lower back pain [8]. The causes of acute urinary retention are most often prostate tumors in first position, then urethral stricture. Diabate [3] found in his study that prostate tu-

mors and urethral strictures accounted for 77% and 15% of the causes of urinary retention; ikuerowo [9], in Nigeria found 64% for prostate tumors, and 28.4% for urethral stricture. Our results confirm these data from the literature, with prostate tumors as the main cause of urinary retention in 71.1% (37) of cases, followed by urethral stricture in 15.3% (8) of cases. Regardless of the cause of the urinary retention, management required urethral catheterization, or suprapubic cystostomy. In our study, urethral catheterization was the type of care most received by patients, in 30.2% (33) of cases; suprapubic cystostomy was performed in 20.1% of cases. The context of the realization of these gestures, was often marked by the absence of kit, especially about suprapubic cystostomy.

Infectious pathologies occupied 20.7%, 19.8%, and 16.4% in Diabaté [3], Fall [6], and Ouattara [7]. In our series, they accounted for 30.2% of urological emergencies. Acute orchiepididymitis in 13.7% (15) of cases, acute prostatitis in 8.2% (9) of cases, gangrene of external genitalia in 5.5% (6) of cases, and acute pyelonephritis in 2.7% (3) of cases. Gangrene of external genitalia in our series was not very common. This could be explained by the fact that there are specialists in general surgery in the region who know very well how to take care of this type of condition; we therefore share with our colleagues in general surgery the cases of gangrene of external genitalia. Gangrene of external genitalia is a very rapidly progressive necrotizing fasciitis. It is even rarer in France with an overall incidence estimated at 1.6/100,000, with a peak incidence (3.3/100,000) between 50 and 79 years [10]. The causative factor is most often a local cutaneous entry point. The terrain plays an important role in the spread of infection; Thus, an unbalanced diabetes will not only lead to immunosuppression which will promote infection, but also microangiopathy, which will promote tissue necrosis. Management in our context essentially consisted of emergency necrosectomy, combined with triple antibiotic therapy based on 3rd generation cephalosporins, metronidazole, and aminoglycosides. Necrosectomy was also performed by other authors [1] [6].

Traumatic emergencies were not very frequent in our series: traumatic urethral injuries were found in 4.5% of cases, the clinical manifestation of which was acute retention of urine; followed by traumatic injuries of external genitalia, of bladder, and of kidney in respectively: 2.7%; 1.8%; and 0.9% of cases. Traumatic urethral injuries, often occurred in the context of a road accident, with pelvic fractures. Sambo [11] in Benin had also found that urethral trauma was the most common urogenital trauma. The patient noted acute retention of urine due to urethral rupture, requiring the placement of a suprapubic cystostomy. The management of the urethral lesion was done later after performing a retrograde urethrocytography. The traumatic injuries of testis constituted the traumatism of the external genitalia encountered in our series. The scrotal ultrasound made it possible to make the lesion assessment by finding a rupture of the tunica albuginea. Other authors, in their series, had found that traumatic injuries of penis were more frequent [1] [6].

5. Conclusion

Urine retention is the most common urological emergency at the teaching hospital of Kara. They are most often found in elderly males. Urethral catheterization was the most common type of care.

Conflicts of Interest

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

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