

Management of Urological Emergencies at the Nianankoro Fomba Hospital in Segou: A Case Report of 72 Patients

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How to cite this paper: Kone, S.I., Traore, M., Yattara, I., Traore, T., Haidara, K., Omam, F.M., Coulibaly, M.T., Berthe, H.J.G. and Diakite, M.L. (2022) Management of Urological Emergencies at the Nianankoro Fomba Hospital in Segou: A Case Report of 72 Patients. *Open Journal of Urology*, 12, 242-247.

<https://doi.org/10.4236/oju.2022.125024>

Received: February 19, 2022

Accepted: May 21, 2022

Published: May 24, 2022

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Abstract

PURPOSE: Our aim was to present the diagnostic and therapeutic aspects of urological emergencies in a regional hospital. **MATERIAL AND METHODS:** We conducted a prospective study over a period of 6 months (April 2021 to September 2021) collecting all the emergencies received by the on-call urology team at the Nianankoro Fomba Hospital in Segou. This team was led by a DES in urology under the supervision of a urological surgeon. We were interested in age, sex of patients, diagnosis, number of patients hospitalised and type of surgery performed in emergency. **RESULTS:** We registered 72 patients. The mean age of our patients was 58.8 years with extremes of 6 and 90 years. Acute bladder retention was represented in 61% and total haematuria in 24%. Renal colic was reported in 8%. Acute prostatitis was reported in 4% of cases, and acute pyelonephritis in 1%. Urogenital trauma accounted for 6%. **CONCLUSION:** Although underestimated, in our context, the management of urological emergencies remains a regular activity of the urology department in view of the number of patients managed. Bladder drainage remains the most frequent procedure.

Keywords

Urological Emergency, Nianankoro Fomba Hospital, Diagnosis Treatment

1. Introduction

Urological emergencies are an important but often underestimated part of the activity of a urology department. In Africa, in general and in Mali in particular,

although emergencies are a usual reason for hospitalisation in public hospitals [1], data on the epidemiology of urological emergencies are rare.

The aim of our study was to present the diagnostic and therapeutic aspects of urological emergencies in a regional hospital.

2. Materials and Methods

We carried out a prospective study over a period of 6 months (April 2021 to September 2021) collating all the emergencies received by the on-call team in the urology department of the Nianankoro Fomba Hospital in Segou. The on-call team consisted of one or two nurses, a doctor specialising in urology and a urologist. The doctor on duty was responsible for monitoring patients hospitalised in the entire urology department, particularly those recently operated on.

For urological emergencies we were interested in the age and sex of the patients, the diagnosis, the number of patients hospitalised and the type of surgery performed in emergency. Patients seen by doctors in the consultation room or during on-call duty for urogenital pathologies that do not fall within the scope of an emergency were excluded from this study.

3. Results

We registered 72 patients. The mean age of our patients was 58.8 years (6 - 90 years) (Figure 1). The most frequent urological emergency symptoms were acute retention of urine (61%) and total haematuria in 24% of cases (Table 1). Nephritic colic in 8% of cases.

The main aetiologies of urine retention cases were prostatic tumours (47%) and urethral stricture (6%) (Table 2).

The main etiologies of haematuria were bladder tumour in 15% of cases and kidney trauma in 4% of cases.

All aetiologies of the nephritic colic cases were lithiasis.

Infectious urological emergencies were dominated by acute prostatitis (4% of cases) and acute pyelonephritis (1%).

Urogenital trauma accounted for 6% and priapism for 1%. Of the urogenital injuries, the most common were kidney injury (4%) and urethral injury (1%) (Table 3).

Lithitic nephritic colic accounted for 8% of urological emergencies during the study period.

The number of emergency hospitalisations was 26 cases (36%).

Eight emergency surgical procedures were performed. The main procedures performed were suprapubic cystocatheterisation (38%) and nephrostomy (25%) (Table 4).

Trans vesical prostatic adenomectomy was the most common final procedure (Table 5).

4. Discussions

Acute retention of urine is the most frequent urological emergency in our study (61%) against (73.9%), (64%) for A. Bobo *et al.*, Kodjo T [2] [3].

Age

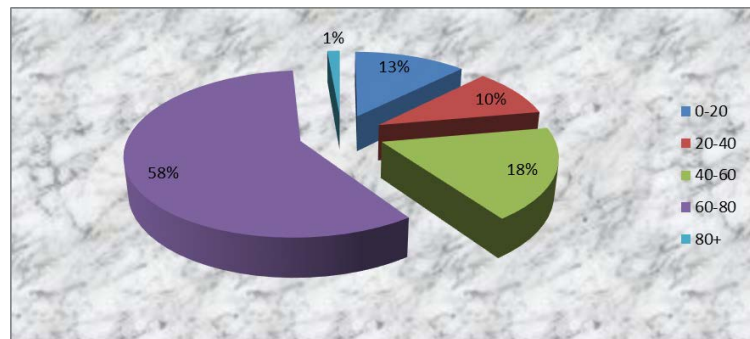


Figure 1. Distribution of patients according to age.

Types of emergencies

Table 1. Repair of patients according to type of emergency.

Types of emergencies	Frequency	Percentage
CN right	6	8%
Verge fracture	1	1%
Hematuria	17	24%
Priapism	1	1%
Acute prostatitis	3	4%
RAUV	44	61%
Total	72	100%

Etiological diagnosis of emergencies

Table 2. Distribution of patients according to etiological diagnosis.

Selected diagnosis	Frequency	Percentage
Urinary bilharzia	1	1%
Fracture of the penis	1	1%
Prostate tumours	34	47%
Urinary lithiasis	6	8%
Paraphimosis	1	1%
NAP left	1	1%
High-speed priapism	1	1%
Acute prostatitis	3	4%
shrinkage of the u	4	6%
Bladder neck sclerosis	1	1%
Stenosis of the right lower urethra	2	3%
Stenosis of the meat urethra	1	1%
Trauma to the kidney	3	4%
Trauma to the urethra	1	1%
Bladder tumour	11	15%
Right renal tumour	1	1%
Total	72	100%

The type of monitoring

Table 3. Distribution of patients according to type of follow-up.

Follow-up	Frequency	Percentage
Discharge	3	4%
Hospitalization	26	36%
outpatient follow-up	43	60%
Total	72	100%

Emergency procedures

Table 4. Distribution of patients according to the procedure performed in emergency.

CARE	Frequency	Percentage
NSAIDS	5	7%
AINS/ANTALGIC/ATB	6	8%
Antibilharzian	1	1%
Suprapubic catheter	3	4%
Bladder irrigation	12	17%
Nephrostomy	2	3%
Cavernous puncture	1	1%
transurethral survey	42	58%
Total	72	100%

The final treatment

Table 5. Distribution of patients according to final treatment.

Type of treatment	Frequency	Percentage
ATVP	23	32%
Cervicotomy	1	1%
Dilation in the benches	4	6%
Right nephrectomy	1	1%
Pulpectomy	3	4%
Bilateral URI	3	4%
Cavernous-spongy shunt	1	1%
Survey /AINS	2	3%
Suture of the albuginea	1	1%
Medical treatment	20	28%
Palliative treatment	11	15%
Right ureterolithotomy	1	1%
Uretroplasty	1	1%
Total	72	100%

Retention was the main reason for the discovery of prostate tumours (47%) followed by urethral stricture (6%). Indeed, for socio-economic and cultural reasons, most people with these conditions do not seek medical attention until the complication phase.

However, in European countries, acute urinary retention is not the most common urological emergency. It represented 22% of the reasons for consultation in France [4].

The average age of our patients was 49.6 years, and 59% of them were 60 years or older; compared to 49.15 years in the study by Kodjo T [3].

The main etiologies of urine retention in our study were prostatic tumours and urethral stricture, respectively 47% and 1%. This result is lower than that of Ikuerowo *et al.* [5] in Nigeria, where benign prostatic hypertrophy was reported in 64%.

Urogenital infections as a whole accounted for 6% of cases compared to 18.2% [4].

Their particularities in our study were the frequency of acute prostatitis (4%) and acute obstructive pyelonephritis (1%).

Emergency drainage of acute obstructive pyelonephritis accounted for only 3% of cases compared to 3.4% of surgical procedures in this study, whereas in the French study by Mondet *et al.* [4] it accounted for 31% of procedures. This drainage consisted in all cases of a bypass nephrostomy. JJ catheterisation was not performed here due to lack of adequate equipment.

We believe that the real frequency of these acute obstructive pyelonephritis in our country is much higher, given the frequency of pathologies that can lead to obstruction of the upper excretory tract such as ureteral lithiasis and the sequelae of bilharzia.

Urological injuries were dominated by kidney injuries. They were most often benign and occurred during road accidents. They represented 4% of urological emergencies followed by urethral trauma 1%. Paparel *et al.* [6] found 43% of kidney trauma.

Fracture of the penis by coitus faux pas accounted for 1% of emergencies and treatment was an emergency suture of the albuginea.

5. Conclusion

The most common urological emergency in our study was acute bladder retention. The emergency management was drainage by transurethral catheterisation and cystostomy or cystocatheterism in case of proven impossibility of passing the ureterovesical probe. In addition, the cases of haematuria observed during our study period had their aetiology as an advanced bladder tumour whose treatment was palliative. Some pathologies such as bleeding adenoma, hyperalgesic nephritic colic, priapism and fracture of the penis required emergency surgical treatment.

Conflicts of Interest

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

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