

Emergencies Andrology at Abeche University Hospital

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Abstract

Introduction: Andrological emergencies include the various pathologies affecting the male genital tract that can endanger the patient's vital prognosis or the functional prognosis of the tract. The aim of this study was to improve the management of andrological emergencies at Abeche University Hospital. **Patients and Method:** This was a prospective, descriptive study conducted over a 12-month period from July 2023 to June 2024 at Abeche University Hospital. Consenting male patients of all ages presenting with an andrological emergency were included. The variables studied were epidemiological, clinical and therapeutic. **Results:** During the study period, 5399 patients were received in the emergency ward, 94 of whom had presented with an andrological emergency, or 1.74% of cases. The average age was 28.5 ± 15.7 years. Patients had consulted for painful swelling of the scrotum in 41.5% of cases. Acute epididymo-orchitis dominates our series with 29.80%. 33% of our patients were put on probabilistic antibiotics. The most commonly performed surgical procedure was debridement in 18.1% of cases. **Conclusion:** The management of andrological emergencies is medical-surgical. These data highlight the importance of andrological emergencies at Abeche University Hospital and the need to implement structures and personnel specifically trained for their optimal management.

Keywords

Andrological Emergencies, CHU-A, Abeche, Chad

1. Introduction

Urological and andrological emergencies are common conditions at the Abeche University Hospital Centre. They are often poorly managed due to a lack of qual-

ified staff and inadequate technical facilities. Andrological emergencies encompass various conditions affecting the male reproductive system that may be life-threatening to the patient and compromise the functional prognosis of the system [1] [2]. They have various aetiologies and may compromise the functional prognosis of the reproductive system or even be life-threatening [3] [4]. They are usually underestimated because they were grouped under the term “urological emergencies” [5]-[7]. The clinical presentations vary and treatment is twofold. The aim of the study was to report epidemiological, clinical and therapeutic data on andrological emergencies at the Abeche University Hospital Centre.

2. Patients and Method

This was a prospective descriptive study conducted at the University Hospital of Abeche over a 12-month period from July 2023 to June 2024. We included consenting patients of all ages admitted for andrological emergencies and treated during this period. Patients who did not give their consent were excluded. The parameters studied were socio-demographic, clinical, therapeutic and evolutionary. Data were collected and analysed using SPSS 19.0 software. Calculations were performed using proportions and means, and statistical significance was considered at $\alpha = 5\%$.

3. Results

During the study period, 5399 patients were admitted to the emergency department, 94 of whom had an andrological emergency, representing 1.74% of cases. The average age was 28.5 ± 15.7 years, ranging from 1 to 62 years. Patients over the age of 40 accounted for 54.2% (Table 1).

Table 1. Distribution of patients by age.

Age	n	%
≤10	21	22.34
11 - 20	4	4.26
21 - 30	9	9.57
31 - 40	9	9.57
>40	51	54.26
Total	94	100

Sixty-three point eight per cent (n = 60) of patients came from urban areas. Eight point five per cent (n = 8) of patients had a university education, compared to 51 per cent (n = 48) who were uneducated. In 77.65% of cases, patients consulted for severe pain.

Acute orchiepididymitis accounted for 29.80% (n = 28) of cases, followed by gangrene of the external genital organs, which accounted for 20.20% (n = 19) of cases (Table 2).

Table 2. Distribution of patients according to type of pathology.

Types of pathologies	n	%
Trauma to the external genital organs	5	5.32
Acute orchitis-epididymitis	28	29.78
Gangrene of the external genital organs	19	20.21
Strangulated inguinoscrotal hernia	14	14.89
Torsion of the spermatic cord	8	8.51
Priapism	7	7.45
Circumcision accidents	7	7.45
Paraphimosis	4	4.26
Penile fracture	2	2.13
Total	94	100

Emergency surgery was performed on 63 patients, or 67.02%. **Table 3** summarises the emergency procedures performed.

Table 3. Breakdown of emergency surgical procedures performed.

Emergency surgery	n	%
Debridement	19	30.16
Orchidectomy	1	1.58
Testicular detorsion + bilateral orchidopexy	8	12.69
Recallotage	4	6.35
Haemostasis	7	11.11
Puncture of the corpora cavernosa	4	6.35
Albuginoraphy	2	3.17
Hernia treatment	14	22.23
Exploration, suturing and haemostasis	4	6.35
Total	63	100

Probabilistic antibiotic therapy based on third-generation cephalosporins, imidazoles and macrolides was administered in 33% of cases. The outcomes were marked by parietal suppuration in 8.2% (n = 5) and death in 3.3% (n = 2) of cases.

4. Discussion

Andrological emergencies accounted for 1.74% of admissions during the study period. This frequency demonstrates the importance of andrological emergencies at CHU-A, which is the only referral centre in the province. The average age of patients was 28.5 ± 15.7 years [1 year and 62 years], and patients over 40 years of age were the most affected, accounting for 54.2% of cases. This result shows that all age groups are affected by urological emergencies, but with a predominance

among patients over the age of 40. The average age of patients was 28.5 ± 15.7 years [1 year and 62 years]. This result shows that all age groups are affected by urological emergencies, with a predominance among young people. Our result is comparable to that of Avakoudjo *et al.* [1], who reported an average age of 25 ± 15.7 years.

Infectious emergencies dominated the clinical picture, accounting for 50% of cases. Among these, acute orchiepididymitis was the most common, accounting for 28.8% of cases. These results can be explained by the young age of the patients on the one hand and their low level of education on the other, which exposes them to sexual practices without means of prevention. Avakoudjo notes that infectious genital pathology is the most common andrological emergency, accounting for 36.2% of cases [1]. In our study, spermatic cord torsion accounted for 8.5% of cases. It is a major andrological emergency where every minute counts. However, delayed consultation exposes the testicle to a risk of necrosis.

Circumcision accidents accounted for 7.40% of cases. Circumcision is a surgical procedure that is still performed by paramedics, with a risk of complications such as haemostasis failure, glans amputation and aseptic failure. Cases of circumcision accidents are also reported by Moby Mpah and Diallo, with an average of 6 and 5.17 cases per year, respectively [2] [8].

Priapism accounted for 7.40% of admissions, and 60% of patients were sickle cell carriers. These figures are similar to those reported by Moby Mpah and Kane, who report 57% and 43% of priapism cases linked to sickle cell disease, respectively [2] [9].

Trauma to the external genital organs accounted for 5.40% of cases in our study. This result is higher than that reported by Bobo-Diallo [10], who reported 2.2%. Although road traffic accidents are a common cause of trauma to the external genital organs, in our study they were more often secondary to assaults. Penile fractures accounted for 2.10%, or 2 patients. This result corroborates that of Rimtébaye [11], who reports an annual average of 1.75 patients.

Surgery was performed on an emergency basis in 67.02% of cases. It consisted of debridement, scrototomy, cavernospongiosus shunt, albuginorrhaphy and haemostasis in 30.2%, 8.5%, 4.30%, 2.10% and 3.30% of cases, respectively. Fall [12] reports a debridement rate of 25.4% of cases. Indeed, in cases of gangrene of the external genital organs or a debilitating wound, debridement is the most appropriate emergency surgical procedure [11].

The management of acute orchiepididymitis was based on probabilistic antibiotic therapy and then secondary antibiotic therapy guided by antibiogram results.

The management of priapism in the four sickle cell patients (57.1%) was based on blood transfusion, rehydration and analgesics. We performed cavernous body puncture in three patients. This result is comparable to those of Moby Mpah *et al.* [2], 57% of whom were of sickle cell origin.

The treatment of priapism in the four sickle cell patients, representing 57.1% of the total, was based on blood transfusion, rehydration and analgesics. We per-

formed cavernous body puncture in three patients. This result is comparable to those of Moby Mpah *et al.* [2], in which 57% of cases were of sickle cell origin. We recorded a mortality rate of 3.3%. Our result is higher than that reported by Moby Mpah [2], who reported a rate of 1.2% in his series. This difference can be explained by the high number of cases of gangrene of the external genital organs in our series, which has a poor prognosis. In our study, proper long-term follow-up could not be carried out for several reasons: low socio-economic status, distance of patients from the hospital, and lack of health insurance.

5. Conclusion

Andrological emergencies are common at the University Hospital of Abeche. Acute orchiepididymitis and gangrene of the external genital organs are the most common andrological emergencies, followed by strangulated inguinal-scrotal hernias through the external genital organs and spermatic cord torsion. Debridement and probabilistic antibiotic therapy were the main methods of emergency treatment.

Conflicts of Interest

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

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