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Urological Diseases in Female Patients at the CNHU-HKM University Clinic of Urology and Andrology in Cotonou

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Abstract

Background- Urological diseases in female patients present unique challenges in diagnosis and management, often requiring specialized care and attention. Despite their significant impact on quality of life, there remains a gap in comprehensive research, particularly in certain regions such as Cotonou. Understanding the prevalence, types, and management strategies for these conditions at the CNHU-HKM University Clinic of Urology and Andrology in Cotonou is essential for optimizing patient care and informing healthcare policies in the region. **Objective-** To review urological conditions in women that have been managed at the University Clinic of Urology-Andrology (CUUA) of the CNHU HKM. **Patients and Methods-** This was a retrospective descriptive study from January 20, 2019, to December 12, 2021, a period of 24 months. We included in this study, all ambulatory and inward female patients who had been managed at the CUUA/CNHU-HKM during the study period. **Results-** Females were 2.38% of urological patients. Their average age was 46.65 years \pm 2.7. Urinary lithiasis was the most common disease with a frequency of 28,9% followed by obstructive renal failure (13.3%) which was related to pelvic tumours and iatrogenic ureteral ligation, urogenital fistulas (8.2%), and urinary incontinence (8.2%). Tumoral disease were renal cyst (6.7%), renal tumor (5.2%), and bladder tumor (5.2%). **Conclusion-** Main urological diseases in women managed at the CNHU-HKM's University Clinic of Urology and Andrology were urolithiasis (28.9%), iatrogenic or pelvic tumor induced obstructive renal failure (13.3%), urinary fistulas (8.2%), and urinary incontinence (8.2%).

Keywords: Urological diseases, Females, CNHU-HKM, Cotonou.

INTRODUCTION

Popular belief in Benin is that urological diseases are men's concerns. The reality is that either men or women are endowed with a urinary system, i.e., urological diseases are females' concerns as well. That fact is demonstrated by several studies in West Africa [1-3]. Daily practice demonstrates it at the CNHU-HKM's University Clinic of Urology and Andrology. Nevertheless, statistical data are lacking on female urological diseases in Benin.

Objective

To determine the epidemiological profile of female urological diseases at the CNHU-HKM's University Clinic of Urology and Andrology.

PATIENTS AND METHOD

We performed a descriptive study with a retrospective collection of data on all ambulatory and inward patients managed at the CNHU-HKM's University Clinic of Urology and Andrology, from January 20, 2019, to December 12, 2020. Every patient's medical record was examined to identify males and females. Data on diseases were collected from each female patient's medical records. Females with unknown diagnosis were excluded. Collected data were social and demographic characteristics, complaints, history, and diagnosis. We analyzed the collected data by means of Epi Info™ version 7.2.5.

RESULTS

5651 patients were admitted to the Clinic during the study period. 135 of them or 2.38% were females. The mean age in the females was 46,65 years \pm 2,7 (range: 18-88). 83 females (61.5%) were 32 through 62 years old (Table 1).

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60.7% of the patients were married, 35.6% attended secondary school, 29.6% were housekeepers and 78.5% were Christians. Hypertension and diabetes mellitus were respectively present in 29 (21.5%) and 7 (5.2%) of the patients. 72 (53.3%) patients were comorbidity-free.

As shown on Table 2, 37.8% patients had a history of gynecological surgery such as caesarian section (13.3%) or hysterectomy (6.7%).

Table 1: Social and demographic characteristics in the 135 patients

Social, demography	Patients (n)	Proportion (%)
Age groups (mean = 46.7±2.7 years)		
<32	26	19.3
32 – 62	83	61.5
≥ 62	26	19.3
Education level		
None	14	10.4
Primary school	36	26.7
Secondary school	48	35.6
University	37	27.4
Profession		
Trader	37	27.4
Business employee	7	5.2
Student	14	10.4
Public servant	9	6.7
Housekeeper	40	29.6
Other	28	20.7

Table 2: History of gynecological surgery in the 135 females

Surgical history	Patients (n)	Proportion (%)
Caesarian section	18	13.3
Myomectomy	10	7.4
Hysterectomy	9	6.7
Mammary surgery	9	6.7
Ovarian cyst surgery	5	3.7
None	84	62.2
TOTAL	135	100

The main complaints in the patients (Table 3) were renal colic (40.7%), and lower urinary tract symptoms (22.2%).

The five most frequent diseases in the females (Table 4) were urolithiasis (28.9%), obstructive renal failure (13.3%), urogenital fistulas (8.9%), urinary incontinence (8.9%), and pelvic organs prolapse (7.4%). Obstructive renal failure was due to either pelvic tumor or iatrogenic ureteral lesions. Pelvic organs prolapse concerned the bladder and the uterus.

Table 3: Main complaints in the 135 females at admission

Complaints	Patients (n)	Proportion (%)
Renal colic	55	40.7
Lower urinary tract symptoms	30	22.2
Vaginal urine leakage	14	10.4
Hematuria	12	8.9
Urinary incontinence	9	6.7
Obstructive renal failure	9	6.7

Lumbar or abdominal mass	3	2.2
Intravaginal mass	2	1.5
Hypogastric pain	1	0.7
TOTAL	135	100

Table 4: Urological diseases in the 135 females

Diseases	Patients (n)	Proportion (%)
Urolithiasis	39	28.9
Obstructive renal failure	18	13.3
Urogenital fistulas	12	8.9
Urinary incontinence	12	8.9
Pelvic organs prolapse	10	7.4
Acute cystitis	10	7.4
Renal cyst	9	6.7
Renal tumor	7	5.2
Acute pyelonephritis	7	5.2
Bladder tumor	7	5.2
Ureteropelvic junction obstruction	2	1.5
Urethral diverticula	1	0.7
Enuresis	1	0.7
TOTAL	135	100

DISCUSSION

Our institution had managed 135 females among 5661 patients. Some females might not resort to medical help or be directed to urological care for their urological disease. Still, it was clear that most urological patients were males. Urological diseases concerned young adult and older women around a mean age of 46.7 years. Kpatcha [1] a similar mean age, i.e., 46.25 years.

All the women but 10.4% had a scholar education. 35.6% of them had attended a secondary school level, i.e., less than the 54.8% found in Gabon [4]. The scholar education level might influence the women's level of information on the existence of medical solution to their urological troubles. Urologists should more communicate on urological diseases towards female populations.

Comorbidities in the patients were hypertension and diabetes mellitus. The latter and other non-communicable diseases are more and more frequent [5,6]. Urologists should take them into account to better urological care in women. There was a history of caesarian section or hysterectomy respectively in, 13.3% and 6.7% patients, which explained that some of their urological diseases were iatrogenic. Some authors had reported 37.93% of caesarian section and 34.48% of hysterectomy [7].

The most frequent complaint was renal colic (40.7%), more than the 37.4% of Kaulanjana [8]. Other authors also had reported that obstructive uropathies were predominant [9]. The next most frequent complaints were lower urinary tract symptoms (22.2%) and vaginal urine leakage (10.4%). According to other authors, pyuria and burning micturition were the most frequent complaints [10]. But all these depends on the types of diseases in the women.

The most frequent disease in the females was urolithiasis (28.9%), higher than the 16.67% prevalence which Idrissa had described [11]. There were 13.3% of obstructive renal failure caused by either iatrogenic ureteral lesion or tumoral invasion of ureters. In Congolese women, it had been reported 17.67% of obstructive renal failure, 4.68% and 3.12% of which respectively caused by cervical cancer, and

both myoma and ureteral stone [12]. In contrast, 89.28% of obstructive renal failure in Moroccan women were obstetrical [13]. Urologists should coach residents in gynecology on urinary organs management during pelvic surgeries and cooperate with gynecologists to reduce the incidence of ureteral iatrogenic lesions.

There were 8.2% of urinary incontinence, 8.2% of urogenital fistulas. Other authors had reported higher prevalence [14,15]. The prevalence of urogenital fistulas might be higher as those diseases affected poor women and were considered by a national free treatment and social reinsertion program. 6.67% of the patients presented a renal cyst, similarly to Togolese patients who present 6.25% of renal cyst [3].

CONCLUSION

The main urological diseases in females were urolithiasis (28.9%), obstructive renal failure (13.3%), urinary incontinence (8.9%), urogenital fistulas (8.9%), pelvic organs prolapse (7.4%). Tumoral disease were renal cyst (6.7%), renal tumor (5.2%), and bladder tumor (5.2%). Urologists should communicate more on urological diseases in females and cooperate more with the gynecologists to reduce the incidence of those diseases.

Limitations

This is a single center study.

Conflict of Interest

The authors declare no conflict of interest.

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