



Research Article

Prostate Enlargement (Hypertrophy): Epidemiological, Clinical and Therapeutic Aspects at the Islamic Clinic of Ngaoundere

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Abstract

Obstructive prostatic enlargement is one of the major symptoms of the male urinary tract affection in elderly subjects and affects more than 200 million men throughout the world. When the medical treatment is not possible and surgery is proposed, endoscopic surgery is privileged. The surgery may be practiced through natural orifices, and then we talk of transurethral resection.

We carried out a retrospective cross-sectional non probabilistic study that covered a period of three (03) years going from January 2017 to October 2019. Collected data were analyzed by the software Excel 2013 and XLSTAT 2016 version. We identified 139 cases of transurethral prostate resection amongst which 29 cases were excluded from study because of the diagnosis of Adenocarcinoma of the prostate gland. With a mean age sample of 66 years, the age group of 70-80 years was the most represented with a frequency of 35.5%. In this sample, 89.09% underwent a PSA test before surgery. Echography of the prostate gland revealed mostly the weights of 25 g and 50 g each with a frequency of 27.20%. One death was recorded out of the 110 patients enrolled giving a death rate of 0.90%, 11 patients in this sample presented prostate relapse either 11%. At last, we may note that, transurethral prostatic resection is a surgical technic of reference to the treatment of benign prostatic hyperplasia with several advantages compared to open surgery.

Keywords: Prostate; Transurethral resection; Islamic clinic of Ngaoundéré

Introduction

Benign Prostatic Hyperplasia (BPH) commonly called prostate adenoma is the most frequent benign tumor of the male sex. The prevalence of BPH increases with age and continue to increase with ageing population [1]. This pathology as such becomes a public health concern and moreover a major preoccupation for health care's professionals [2]. It is also known to be responsible for the micturition problems in old peoples. Life expectancy for men in Cameroon is in increase these last year's [3]. As such increased the rate of ageing pathologies related like BPH and prostatic cancer. The second international seminary on BPH recommended carrying out epidemiological studies on the incidence and prevalence of BPH in every continent. As a matter of fact, if such studies have been carried out in other continents of the world, it is not the case of black African countries and Cameroon in particular.

The treatment of prostatic enlargement has known several evolutions among which we can name, open surgery [FREYER

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HRYNTCHAK, TERENCE MILLIN], endoscopy (transurethral resection). Then, medical treatment by the means of medicinal plants, alpha blockers and hormones. Also, other methods of treatment such as urethral prostatic dilatation, prostatic thermotherapy, cryosurgery, electrovaporisation and laser vaporization.

Endoscopic resection of the prostatic gland remains a challenge in developing countries as Cameroon whereby open surgery remains the most practiced with a favorable recovery notwithstanding a non-neglected post-operative complication. This last decade, endoscopic development has reduced the rate of open surgery in our developing countries.

General objective

Describe the socio-demographic profile of patients suffering from BPH at the Islamic clinic of Ngaoundéré.

Specific objectives

1. Describe the endoscopic management of BPH.
2. Determine the complications of transurethral resection of BPH at the Islamic clinic of Ngaoundéré.
3. Evaluate the rate of healing and relapses.

Methodology

Type of study

The design is retrospective study on the evaluation of the endoscopic resection of BPH at the Islamic clinic of Ngaoundéré.

Period of study

The study was carried out within a period of six (06) month, going

from the month of July 2019 to December 2019.

Study framework

The study was carried out in the unit service of urology of the clinic.

Population of study

Study population concerned all the patients that consulted for a prostatic enlargement in the grand north regions.

Study sample

110 patients constituted the study sample for this design study.

Type of pattern

The sampling was exhaustive and non-probabilistic. As such, all the patients that responded to the criteria conditions were included to the study.

Inclusion criteria

Confirmed BPH with anatomy pathologic test and an endoscopic management surgery carried out at the Islamic clinic of Ngaoundéré.

Non-inclusion criteria

Patients with confirmed BPH that underwent open surgery for the management of the prostate gland at the Islamic clinic of Ngaoundéré. Equally, were not included, patients with Adenocarcinoma of the prostate gland at pathologic anatomy exams.

Data treatment

Recovered survey files were analyzed by the software SPSS, treated and compiled by the software Excel 2013 and XLSTAT 2016 version.

Materials

Patients' medical files, surgical reports, anesthetic files, biological and anatomic results such as: PSA test, Echography, uroflowmetry and anatomy pathologic report of the gland.

Method of data collection

Data were collected by the means of a survey file that included the following characteristics: sociodemographic profiles (name and surname, age, region of origin, place of residence, matrimonial statute, tribe, profession and religion), medical history (passed history of BPH, drug consumption, urinary infections), diagnostic elements (motifs of consultation, rectal examination, PSA test, anatomy pathologic test results), treatment (anesthetic, type of resection, operative report, surgical duration, post-operative follow up, hospital stay period) and the evolution (rate of mortality and relapse cases).

Results

Socio-Demographic characteristics

The most represented age group of the sample was 70 and 80 years with 35.5% followed by those of 60 and 70 years with 34.5%. Age extremes were 50 years and 104 years with an average age of 66 years (Figure 1).

Diagnosis of benign prostatic hyperplasia

Reasons of consultation: The Figure 2 is an illustration of the population of study following chief complaints. Thus, the majority of the reasons of consultation were dysuria followed by distended bladder in 43.63% and 31.81% respectively.

Urine outflow measure: The urine outflow measure (uroflowmetry) is the parameter that measures urine outflow during micturition so as

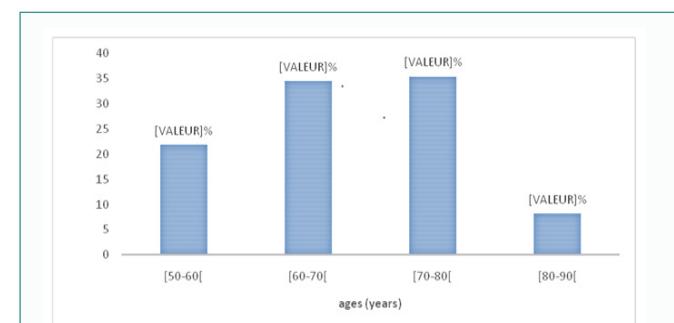


Figure 1: Patients distribution following age.

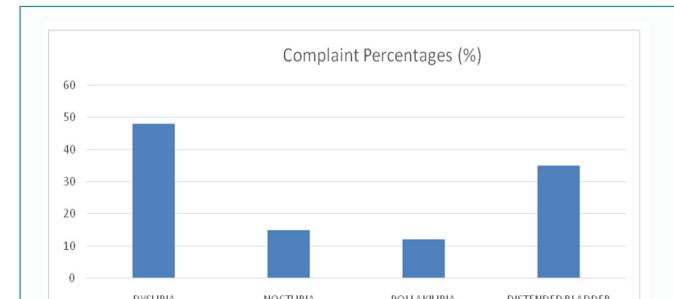


Figure 2: Distribution of patients following consultation complaints.

to classify dysuria by informing on the state of urethral obstruction. The Figure 3 reveals that, 14.5% of our sample presented a slight obstruction whereas, 6.3% and 4.5% of the patients respectively presented moderate and severe obstructions of the urethral canal.

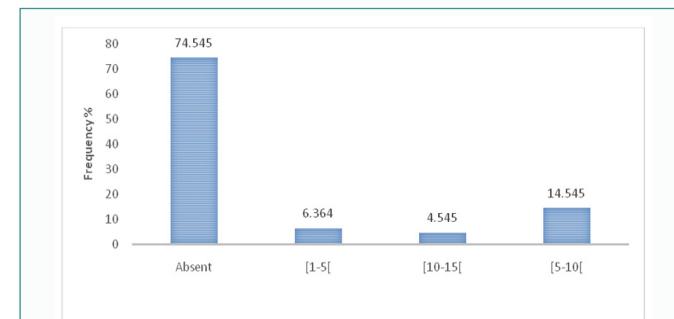


Figure 3: Patients distribution following urine out flow.

Impact of the urinary system: Echography realized to evaluate the impact of enlarged prostatic gland on the urinary system was normal in 91.8%. We observed a distended bladder in 8.1% as shown in Figure 4.

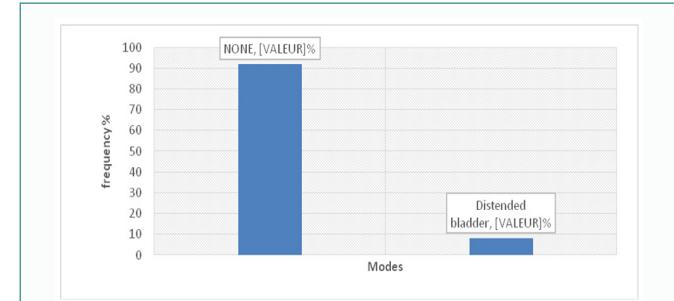


Figure 4: Patients distribution following the impact of BPH on the urinary system.

Treatment

Here, we find out that, most of the patients either 91.8% underwent a transurethral resection during procedure against 8.1% for the TUR-P channel as seen in Figure 5.

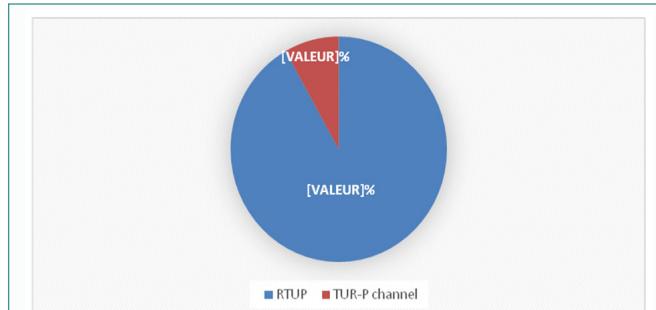


Figure 5: Patients distribution following the type of resection.

Evolution

BPH relapse: The figure below shows the distribution of the population following the cases of relapse recorded. It is noted that out of the 110 patients of the sample, only 11 patients presented relapse either 11%.

Mortality rate: The mortality rate of the study sample which was of the order of 0.90% corresponding to 1 death out of 110 patients.

Correlation between the weight of the prostate gland at echography and the result at anatomic pathology: The Table 1 illustrates the correlation that exists between the echographic weight of the gland and the result at pathologic anatomy. A p-value <0.0001 proves a significant relation that exist between the weight of the prostate gland and the pathologic results.

Discussion

Socio-demographic characteristics

In this study, the mean age of the sample was 66 years. The most affected age group was that of 70-80 years with a frequency of 35.45%. These results are close to those of Paul BANOU in a study carried out where by, the average sample age of the population of study was 67.06% [4].

On the other hand, FATIMA in Mali worked with an average sample age of 70-90 years [5].

This average age is considered in Cameroon as the group of elderly peoples. In fact, in Cameroon, a person is considered old if he/she attains the retirement age that varies between 50 to 65 years [6].

Reasons of consultation

Study reveals that, the principal reason of complaint was dysuria with 43.6% cases followed by distended bladder and pollakiuria with respective frequencies of 31.8% and 10.9%. However, MOUAD EL MOUHTADI reported in 2018 in Marrakech that dysuria was

Table 1: Correlation between echography weight and anatomic pathology results.

Variables	Modes	Anatomic pathology results				p-value
		Absent	PIN 1	PIN 2	PIN 3	
Echography	Absent	0	3.636	1.818	5.455	10.909
	[100-125]	1.818	3.636	4.545	0	10
	[125-150]	0	6.364	0.909	0.909	8.182
	[25-50]	9.091	5.455	7.273	5.455	27.273
	[50-75]	20.909	2.727	0.909	0	24.545
	[75-100]	0	10	1.818	7.273	19.091
	Total	31.818	31.818	17.273	19.091	100

the major motif of complaint with a frequency of 83.3%; followed by pollakiuria with 70%. These rates are different from those of MAHAMADOU ALHADER whereby pollakiuria and dysuria were present in the whole sample, either a 100%. Similar symptoms are observed in this sample.

Uroflowmetry

It has been realized by 28 patients of this sample before surgery showing an average of 27.5 ml/s. slight obstruction was mainly observed with 14.5%. This average urine outflow is greater than that of MOUAD EL M reported in 2018 before and after surgery with respective percentages of 7.2 ml/s and 20.5 ml/s. This difference of urine outflow may be as a result of a week participation concerning the uroflowmetry test as just 28 patients out of 110 realized this test, whereas all the patients in MOUAD sample went through, this test.

Anatomic pathology results

In this design study, anatomy pathologic results of 104 patients realized revealed that, 75 patients had a normal BPH whereas 29 of the patients result revealed an Adenocarcinoma with respectively 72.11% for BPH and 27.88% for Adenocarcinoma of the prostatic gland.

Risk factors

Among the risk factors recorded in this study, 22 patients were tobacco consumers and 31 patients' alcohol consumers either 20% or 28.2% respectively. Recorded rates of alcohol and tobacco consumptions in this study is less than that of Paul B whereby 33.33% (23) of the patients sample consumed tobacco and only 4.35% consumed alcohol [4]. Obtained results may be as a result of the fact that, Paul BANOU carried out his study in a region where alcohol was prohibited.

Surgical treatment by the transurethral resection of the prostate (TURP) gland

The type of surgical resection the most used in this sample was the transurethral resection with a frequency of 91.8%. Also used, was the TUR-P channel in a few cases where the main indication was to take a piece of tissue so as to unblock the urethral canal.

Evolution

Out of the 110 patients enrolled in this study, we recorded just 1 death either 0.90%. This rate is lower than that of GUISSE who recorded 7% death in his study sample [5-14] obtained death rate in this study may be as result of the professionalism of the practitioners of the Islamic clinic of Ngaoundéré. Furthermore, we have registered 11% of relapse in the course of this study which may probably be due to incomplete resection of the adenoma during surgery.

Conclusion

It comes out at the end of this study that, transurethral resection of the prostatic gland is a surgical treatment of choice for enlarged prostate glands. It is a mastered surgical technique at the Islamic clinic of Ngaoundéré and practiced by a group of professional specialists. Its

advantages are greater than that of open surgery. It is a less invasive surgery than usual laparotomy practiced during open surgery. Amongst other, the following are some of the advantages such as the reduced risk of adhesion, reduced hospital stay period, reduced esthetic disorders, early work resumption, reduced infectious risks. In spite of the reputation of the clinics team to master the endoscopic technic of the prostatic gland resection, there exist certain difficulties related to insufficient endoscopic materials and qualified human resource in the domain of endoscopy. None of the TURP syndrome was recorded in the course of this study. Despite of the low mortality rate in this study, the TURP requires a number of means to be more efficient, as such, in the perspective of health for all in our country, the TURP technic is worth to be supported and developed for its vulgarization in the whole country.

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