

Original Research Article

Benign Hypertrophy of the Prostate: Clinical and Epidemiological Aspects at the Koutiala Reference Health Center

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Abstract: Purpose: To study the clinical and epidemiological aspects of benign prostatic hypertrophy at the Koutiala reference health center. **Patient methods:** This is a prospective study from April 2016 to April 2017, 13 months in total. All patients in whom the clinical examination and ultrasound made the diagnosis of prostate adenoma and in whom the diagnosis was confirmed at surgery were included in this study. **Results:** The frequency of benign prostatic hypertrophy was 23.81%; it occupied first place among surgical uropathies with 54.94% and took second place among all surgical pathologies with 29.6% of cases. The average age of our patients was 71 years. The age group 61 – 75 was the most affected with a frequency of 59%. Acute retention of urine comes first among the reasons for consultations with a rate of 58%. Ultrasound has been the reference examination for the diagnosis of this pathology. It was performed in all our patients. The surgical pathologies most associated with prostate adenoma were inguinal hernia, 6 cases (6%). The treatment was surgical in 100% of the series, via the transvesical route using the Freyer Hryntchak technique. The pathological examination of the surgical specimens detected one case of prostate adenocarcinoma, 1%. Post-operative outcomes were simple in the majority of cases, 86%. 70% of patients had a hospital stay of 5 days, the average was 8 days with extremes of 4 and 33 days. The mortality rate was 4.17%. **Conclusion:** Upper prostatic adenomectomy remains the main technique for surgical management of BPH in Mali and in our center in particular with low postoperative morbidity and mortality.

Keywords: Benign prostatic hypertrophy - clinical and epidemiological aspects.

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INTRODUCTION

Prostate adenoma or benign prostatic hypertrophy (BPH) is a proliferation of both epithelial and stromal tissue of the prostate gland. This pathology is common. It is the leading cause of cervico-urethral obstruction in elderly men [1].

It is a tumor that remains closely linked to age, having unpredictable and variable clinical manifestations over time, and this without any parallelism between the importance of the functional signs and the anatomical lesions. In Africa, according to certain studies, prostatic adenomectomy comes first among surgical activities in urology departments [2, 3].

In the literature, but also in Mali, several studies have been carried out on BPH; These studies have shown that BPH causes urination problems in 50% of subjects over 50 years old [4]. Thus, one in four men suffer from it between the ages of 50 and 54 and three in four between the ages of 65 and 70 [5].

POPULATION AND METHODS

This is a prospective study involving 100 cases of transvesical adenomectomies of the prostate, ranging from April 2016 to April 2017, 13 months.

Included in the study were all patients in whom the clinical examination and ultrasound made the diagnosis of benign prostatic hypertrophy and in whom the diagnosis was confirmed at surgical intervention.

The parameters studied were: Age, recruitment method; clinical study: (functional signs, physical signs, associated pathologies); paraclinical study: (ultrasound of the prostate and histology of the surgical specimen); therapeutic study: (the operating technique and the operative consequences).

Data collection was based on patients' medical files and operating reports.

Data were entered and analyzed using EPI Info version 7, Microsoft Office Word 2013 was used for word processing and Microsoft Office Excel for figures.

RESULT

During the study period, we collected 100 cases of transvesical adenomectomy of the prostate, representing a frequency of 54.94%. The average age was 71 years with extremes ranging from 45 to 84 years. The best represented age group was 61-75 years old, 50% (Table I) Most of the patients were residents of Koutiala district in 92 cases or 92%.

Patients came on their own in 67% of cases. Acute retention of urine was the most frequent reason for

consultation, 58%, and the majority of patients consulted between 12-24 months after the appearance of the first symptoms, i.e. 48%. On rectal examination, the contour of the adenoma was well defined with a smooth surface in 94% of patients, firm-elastic in 91% of patients and hard in 6%. Forty-two (42%) of the patients had an adenoma weight greater than 105 g on ultrasound (Table II).

Trans-vesical adenomectomy of the prostate alone was performed in 90% of cases, it was associated with hernia repair, cystolithotomy and urethral dilatation in 6%, 2% and 2% respectively.

Immediate, secondary post-operative complications were dominated by hemorrhage-clot and infection of the surgical site, each accounting for 8.33% of cases.

Late postoperative complications were dominated by urinary incontinence in 3.13% of cases. We recorded 4 cases of death or 4.17%.

The majority of patients had a hospital stay of 5 days or 70%, the average was 8 days with extremes of 4 and 33 days.

Table I: Distribution of patients according to age

Age	Effective	Percentage (%)
45-50 ans	3	3
51-60 ans	17	17
61-75 ans	59	59
Plus de 75 ans	21	21
Total	100	100

The most represented age group was 61 to 75 years old with 59%.

Table II: Distribution of patients according to the ultrasound weight of benign prostatic hypertrophy

Ultrasound weight of BPH (g)	Effective	Percentage (%)
< 45	5	5
46 – 65	13	13
66 – 85	16	16
86 – 105	24	24
> 105	42	42
Total	100	100

Forty-two (42%) of the patients had an adenoma weight greater than 105 g on ultrasound.

DISCUSSION

Trans-vesical adenomectomy of the prostate occupied second place in the surgical activity of our service, i.e. 29.6%, and occupied first place in surgical uropathy, i.e. 54.94%.

In most Malian and African series, prostatic adenomectomy occupied the first place in surgical activity [6, 7,8]. N K Romain [9] had a frequency of 30.7%.

The average age of patients in our series was 71 years. These data are comparable to those collected in

Europe and the USA where the average age was over 65 years [10]. Marico M.Z. [11] and Diallo A.Y [12] found in their studies 61 years and 75 years respectively. In our study the 61-75 age group was the most represented with a rate of 50%. Prostate adenoma remains the pathology of the elderly with a relatively higher frequency between 61 and 75 years in our study.

Patients came on their own in 67% and referred by a health facility in 33% of cases. Marico M.Z. [11] and Diallo M *et al.*, [13] respectively found 69.1% and 72.9% of patients referred in their series.

Acute retention of urine, nocturnal frequency and dysuria were the main symptoms with respectively 58% cases, 26% cases and 7% cases. Simaga [14] and N K Romain [9] found frequencies of 100% for pollakiuria and dysuria. Acute retention of urine was recorded as a discovery circumstance in 58% of cases, which is higher than the 49% and 48% of Mallé [15] and Soumana A [16] respectively.

Inguinal hernia was the surgical pathology most frequently associated with prostate adenoma, which was associated in 6 cases (6%). Our results are close to the respective series of Malle D [15] and N.K. Romain [9] who recorded 14% and 4%, respectively, of hernia associated with prostatic hypertrophy.

On palpation, 58 patients (58%) presented with a bladder globe. Rectal examination found an increase in prostate volume in 100% of our patients. The contour of the prostate was well limited in 94% of cases and its consistency was firm and elastic in 91% of cases, hard in 6% of cases and nodular in 3% of cases. Our results are close to those of Diallo M *et al.*, [13] who found the prostate to be firm in consistency in 129 patients (97%) and hard in 4 patients (3%).

Our results are inferior to the respective series of Diallo M *et al.*, [13] and N.K. Romain [9] who recorded respectively, 72.4% and 79.8% of bladder globe on palpation; and 99.24% and 98.6% increase in prostate volume on rectal examination.

Prostate specific antigen (PSA) testing was not performed in our series. This was due to the lack of technical platform for the dosage of this marker at the CSRéf of Koutiala, because it is rural.

Prostatic ultrasound was performed in all our patients because it was available, less expensive and did not require any prior preparation. Forty-two (42%) of the patients, the majority, had an adenoma weight greater than 105 g on ultrasound. Botcho G in Togo [17] found an average prostate volume of 104.7 cm³ (ranging from 35 –285 cm³) on ultrasound. These observations confirm the continued relevance of upper prostate adenomectomies in developing countries but without necessarily delaying the emergence of endoscopic techniques.

The average length of hospitalization was 8 days, close to 5 days in Dakar [18] and less than 14.6 days in Benin [19], 10.9 days in Bobo [20] and 10 days in Mariko M. Z in Sikasso [11]. In our practice we are increasingly providing outpatient care.

The immediate consequences were simple for 72 patients or 72.92. Hemorrhage with clot formation was recorded in eight patients, or 8.33%, this rate is higher than the 5.9% of Diallo A.Y [12].

The mortality rate was 4.17%: two due to stroke and two related to complications of diabetes and kidney failure. Kambou T *et al.*, recorded 2 deaths out of 218 patients, or 0.9% [20]. In most series, comorbidity factors play a significant role in mortality during this pathology in the elderly.

CONCLUSION

At the end of this study, classic transvesical prostatic adenomectomy remains the main technique for surgical management of BPH in Mali and in our center in particular with low postoperative morbidity and mortality. In our department, the management of BPH is a frequent activity. This care is provided by general surgeons. We therefore recommend the training and recruitment of urologists for better management of urological pathologies in our center.

Declaration of interests: The authors declare that they have no conflicts of interest in relation to this article.

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