Indications for and Diagnosis at Cystourethroscopy in Jos, Nigeria.

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SUMMARY

Background: **Cystourethroscopy is an invaluable procedure in urologic practice for diagnosis, treatment and follow-up. Despite this, there is no policy documentation on the indication versus findings of this procedure in our centre.**

***Method*: We retrospectively studied the records of patients who had cystourethroscopy at our centre from August 1996 to November 1998, particularly for the demographic profile, indications and cystoscopic diagnosis.**

***Results*: Eighty-two procedures were carried out in 77 patients with a male: female ratio of 6.7:1 and mean age of 49.2 years. Haematuria, urethral stricture and benign prostatic hyperplasia (BPH) were the major indications in 20, 18 and 16 patients respectively. Main cystoscopic diagnoses however were BPH, urethral stricture, vesical schistosomiasis, bladder tumour and carcinoma of prostate.**

***Conclusion*: Cystourethroscopy is used in our centre mainly as an investigative procedure to establish diagnosis in patients with haematuria. It is able to establish the diagnosis in most of our patients. It is necessary to intensify its use not only as a diagnostic tool but for therapeutic applications, a use that is now getting applications in our centre.** *Niger Med J, Vol. 46, No. 2, April – June, 2005.*

KEY WORDS: ***Cystoscopy, urethroscopy, cystourethroscopy, haematuria.***

INTRODUCTION

Cystourethroscopy is not a commonly performed procedure in many centres in the developing world, due mainly to lack of relevant equipment and expertise. That this is an invaluable procedure in the evaluation of many urologic patients is not in doubt[1]. Where it is available, it is used mainly as an investigative tool, with only a few centres exploiting its therapeutic usage because of lack of accessory equipment for such use.

We reviewed retrospectively the major indications for and diagnosis at cystourethroscopy in our centre.

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PATIENTS AND METHODS

Records of patients who had cystourethroscopy at the Jos University Teaching Hospital between August 1996 and November 1998 were retrospectively reviewed with respect to demographic profile, indications for and diagnosis (finding) at cystourethroscopy. Patient records with incomplete significant information relevant to this study were excluded. Data analysis was done using EPI-INFO computer statistical software programme version 6.03. Conclusions and recommendations were then made.

RESULTS

A total of 83 cystourethroscopies in 77 patients were done during the period under study. There were 67 male and 10 females patients (male: female ratio 6.7:1) with a mean age of 49.2 years (range 2 to 98 years). Forty one (53.9%) patients were aged 50 years and above (Table 1).

Table i: Age distribution of patients undergoing urethrocystoscopy at Jos University Teaching Hospital.

Age (years)	Frequency (%)
0 – 9	2 (2.6)
10 – 19	4 (5.2)
20 – 29	6 (7.8)
30 – 39	16 (20.8)
40 – 49	11 (14.3)
50 – 59	10 (12.9)
60 – 69	17 (22.1)
70 +	11 (14.3)
TOTAL	77 (100.0)

The major clinical indications for cystourethroscopy were haematuria(20), urethral stricture(18), benign prostatic hyperplasia (BPH)(16) and prostatic carcinoma(11) (Table 2). Many patients had multiple indications. Indications in men were mainly due to haematuria(20) and urethral stricture (18). In women, indications were urinary tract infection (UTI)(4), hydronephrosis(3), bladder tumour(2) and chylouria(1). Indications in children were posterior urethral valve (2) and haematuria(1). The main cystoscopic diagnoses were BPH(18), urethral stricture(14) and vesical schistosomiasis (Table 2). Patients with haematuria were mainly found to have BPH(10),

Table 2: Clinical and cystoscopic diagnosis at Jos University Teaching Hospital.

Indication	Clinical Diagnosis (%)	Cystoscopic Diagnosis (%)
Haematuria	20 (19.2)	–
Urethral Stricture	18 (17.3)	14 (15.6)
BPH	16 (15.4)	18 (20.0)
Prostatic carcinoma	11 (10.6)	8 (8.9)
UTI	10 (9.6)	7 (7.7)
Bladder tumour	8 (7.7)	9 (10.0)
Vesical Schistosomiasis	7 (6.7)	11 (12.2)
Urinary retention	6 (5.8)	–
Others	8 (7.7)	23 (25.6)
TOTAL	**104 (100.0)	**90 (100)

BPH, Benign Prostatic Hyperplasia; UTI, Urinary Tract Infection;
**Some patients had multiple indications or diagnosis.

Table 3: Cytoscopic diagnosis in 20 patients with haematuria.

Diagnosis	Frequency (%)
BPH	10 (50)
Bladder carcinoma	6 (30)
Vesical schistosomias	5 (25)
Urethral stricture	2 (10)
No Abnormality	1 (5)
TOTAL	20 (100)

BPH, Benign Prostatic Hyperplasia.

carcinoma of bladder(6) and vesical schistosomiasis(2) (Table 3). Repeat urethrocystoscopies were necessary to assess response to therapy in 3 patients with vesical schistosomiasis and one each with urethral stricture and carcinoma of the prostate.

DISCUSSION

A total of 83 cystourethroscopies in 77 patients were done during the period under study. This figure compares well with the study of Chancellor *et al.*[3] but much lower than that of others[1,4-7]. Our study is however an initial report. Expectedly, males predominated in our series. Our patients were aged 2 to 98 years as it is a general urology unit. The mean age of 49 years is much lower than Eldin's series of 64.8 years, as Eldin's study was mainly in older men with voiding complaints.

Haematuria was found to be the major indication for cystourethroscopy in our study as also elucidated by others[3]. Six (30%) were found to be due to bladder tumours. We stress the importance of this investigation in patients with haematuria because of the very important differential diagnosis of bladder carcinoma, also stressed by several authors[5,6,8]. Cystoscopy was able to identify the cause of the haematuria in all but 1 patient in whom no abnormality was detected in the lower urinary tract. It is thus an invaluable tool in sorting out these patients, to enable early and precise treatment. Sixteen and 11 patients respectively had cystourethroscopy for benign prostatic hyperplasia and prostatic carcinoma, presenting mainly with voiding complaints. We rely in our centre on cystourethroscopy for the evaluation of such patients as we do not have facilities for urodynamic studies. This however gives valuable information and moreover, the findings of cystourethroscopy in such patients have been found to correlate well with those of urodynamic investigations[1], as it also provides information on the cause, size, severity of obstruction, patency of the bladder neck, prostatic occlusion of the urethra and estimated prostatic size. UTI was the most common indication in women as they are prone to it and do not have prostatic diseases and rarely have urethral stricture due to the short length of the urethra of 4cm as against 20cm in men.

Posterior urethral value though rare in our environment[2] was the most common indication in children as congenital problems are expected more frequently in this age group.

Only 8 patients had cystourethroscopy for suspected bladder tumour. Cystourethroscopy has been found to be quite useful in diagnosis[7,9], treatment and follow-up[4] of patients with bladder tumour and has been stated to be the standard surveillance technique to detect recurrent bladder cancer (Transitional cell)[4]. Urinary tract infection was the most common indication in women as bladder outflow obstruction is not common in them and due to their predisposition to the infection. Repeat cystourethroscopy was done in 5 of our patients to monitor response to various treatment modalities for vesical schistosomiasis, urethral stricture and prostatic carcinoma. This is a standard procedure as also elucidated by various authors[4,9-12].

Cystourethroscopy was carried out in our centre mainly as an investigative tool for haematuria during the study period and was found useful in confirming or refuting the diagnosis in patients with particularly lower urinary tract symptoms. It is necessary to intensify its use not only as a diagnostic tool but for therapeutic applications, that is now being used in our centre.

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