ORIGINAL RESEARCH

A study on prevalence of urinary symptoms in urogenital prolapse In A Tertiary Care Hospital

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ABSTRACT
Voiding dysfunction in women is most commonly associated with detrusor contractility. Detrusor under activity is defined as a detrusor contraction of inadequatemagnitude,duration, or bothto effectbladderemptying within normal time span. Patients attending with genitourinary prolapse were explained about the nature of the study and written and informed consent was obtained. Detailed history, general physical examination was done as per predesigned and pretested proforma. Hesitancywaspresentin18 patientsanditwasnotsignificantly associated with the degree of prolapse. Straining to void was reported by 42 patients, out of which 3 patients had second degree and 33 patients had third degree prolapse. All the six patients with procedentia had complaints of straining to void. P value was 0.006 which shows a significant relation with degree of prolapse.

Key words: Urinary symptoms,urogenital prolapse, voiding dysfunction

INTRODUCTION

The lower urinary tract can be divided into the bladder and urethra. At the junction of these two, vesicle neck is present. It is a hybrid structure, represents that part of the lower urinary tract where the urethral lumentransversesthe bladder wall before becoming surrounded by the urethral wall.[1]

The vesicle neck is considered separately because of its functional differentiation from bladder and the urethra.

Thereisvisibletriangulararea within the bladder known as vesicle trigone.

The two ureteral orifices and the internal urinary meatus form its apices. The base of the trigone triangle i.e. inter ureteric ridge forms useful landmark in cystoscopic identification.

This triangular elevation has a specialized group of smooth muscle fibers that lie within the detrusor and arise from a separate embryological primordium.[2]

Urethral support is dynamic rather than static and urethral position is determined by both, attachments to bone and to the levator animuscle.

The Resting position of urethra is high within pelvis, Some 3 cm above the inferior surface of public bone. It is above the insertion of pubourethral ligament which attaches near the lower margin of the public bones.

Maintenance of this position would bebestexplainedbytheconstant muscular activity and levatorani. The upper 2/3 urethra is mobile and under voluntary control.

At the onset of micturition, relaxation of the levatorani muscle allows the urethra to descend and obliterates the posterior urethrovesical angle. Resumption of the normal tonic contraction of the levator ani muscle allows the urethra to its normal position.[3]

The anterior vaginal wall and urethra arise from the urogenital sinus and intimately connected. The support of the urethra depends upon the vaginal wall attachments and attachment of perineal Tissue to the muscles and fasciaof the pelvic wall.

Voiding phase disorders have been classified by the International Continence Society as those

involvingabnormaldetrusororurethralfunction during micturition.

Voiding dysfunction in women is most commonly associated with detrusor contractility. Detrusor under activity is defined as a detrusor contraction of inadequatemagnitude,duration, or bothto effectbladderemptying within normal time span.[4]

Inadequate voiding associated with normal detrusor activity results from a functionalandmechanical obstruction, functional in cases of detrusor sphincter dyssynergia and mechanical in cases of urethral stricture or advanced pelvic organ prolapse.[5] Hesitancy refers to trouble in starting thestreamofurine.Straining to void, poor and intermittent flow can all reflecteitherurethralordetrusor dysfunction. Post micturitiondribbling canbe due to urethraldiverticulum. [6]

METHODOLOGY

TYPE OF STUDY

The present three year study was observationaldescriptive cross sectional study.

STUDY PERIOD

This study was conducted over a period of threeyearsin a Tertiary Care Hospital in Karnataka, South India.

SAMPLE SIZE

Present study was conducted on 65 patients with urogenital prolapase.

SAMPLING PROCEDURE

The sample size was calculated based on 80% of the average number patients attending a Tertiary Care Hospital, Belgaum over three years with urogenital prolapse.

SELECTION CRITERIA

INCLUSION CRITERIA

- All the patients with urogenital prolapse.

Exclusion criteria

- Patients not willing to give informed consent.
- Patients not available for follow up after operation.

PROCEDURE

Patients attending with genitourinary prolapse were explained about the nature of the study and written and informed consent was obtained. Detailed history, general physical examination was done as per predesigned and pretested proforma and they were subjected to;

- History taking and filling of the preformed questionnaire for urinary complaints.
- Menstrual and Obstetric history.
- Physical examination which included POP-Q.
- Determination of PVR preoperative and postoperative.
- Urine routine and microscopy.

RESULT

Table 1: Distribution of patient's storage symptoms and its significance to degree of prolapse

Storage symptom	Frequency	Percentage	P value
Stress incontinence	17	26%	0.212
Urge incontinence	28	43%	0.449
Increased frequency	44	68%	0.153
Nocturia	42	65%	0.250

Storage symptoms were present in a large percentage of patients but they were not significantly associated with the degree of prolapse. Urge incontinence was complainedby 43% of patients and stress incontinence was complainedin 26% patients.17 patients had complaints of stress urinary incontinence, but it was observed in only 9 patients.

Increased frequency of micturition and nocturia found in 68% and 65% patients, but they were not significantly associated with the degree of prolapse

Table 2:Percentage of emptying dysfunction symptoms in study population

Emptying dysfunction symptoms	Number of Patients	Percentage
Hesitancy	18	27.69%
Straining to void	42	64.62%
Incomplete emptying	46	71.77%
Poor stream	23	35.38%
Intermittent stream	10	15.38%
Post micturition	13	20.00%
Has to reduce to void	47	72.31%

Hesitancywaspresentin18 patientsanditwasnotsignificantly associated with the degree of prolapse. Straining to void was reported by 42 patients, out of which 3 patients had second degree and 33 patients had thirddegree prolapse. All the six patients with procedentia had complaints of straining to void. P value was 0.006 which shows a significant relation with degree of prolapse.

Table 3: Distribution and significance of emptying dysfunction symptomsto degree of prolapse

Emptying dysfunction symptoms	Frequency	Degree of prolapse		Precedential	'p'value
		2"d	3rd		
Hesitancy	18	2	13	3	0.368
Straining to void	42	3	33	6	0.006 (s)
Incomplete emptying	46	4	37	5	0.022 (s)
Poor stream	23	1	20	2	0.125
Intermittent stream	10	2	8	0	0.544
Post-micturition	13	I	10	2	0.471
Has to reduce to void	47	2	39	6	<0.0001 (s)

Incomplete emptyingwascomplainedby 46patients.Out of them,4 patients had 2nd degree, 37 patients had 3rd degree prolapse and 5 patients hadprocedentia. It was also significantly related with the degree of prolapse. P value was 0.022.

Poor stream was present in 23 patients. Intermittent stream was present in 10 patientsand13 patientshadcomplaintsaboutpostmicturitiondribbling without significant relation with the degree of prolapse.

DISCUSSION

The diagnosis of uterovaginal prolapse has a significant positive relationship with high PVR. The proposed mechanism of genital prolapse is the distortional or kinking effect on the urethra to create bladder outflow obstruction.

In the present study, mean age of the patients admitted with prolapse was 50 years. In the studies done by Bradley and Haylen, the mean age of prolapse patientswas68 and58 yearsrespectively.[7]

Comparedtothesestudies,the present study had a young study population.

This study shows that increasing parity is not associated with urinary retention and elevated PVR. Similar results were found in study done by Lukacz and Lowenstein.[8]

In this study, stress urinaryincontinenceandoveractivebladder symptoms like urge incontinence, frequency, nocturiawere notassociatedwith the increasing grades of prolapse.

Various obstructive urinary symptoms like straining to void (p=0.006), incomplete emptying (p=0.022) and has to reduce prolapsetovoid (p=0.0001) were associated with the increasing grades of prolapse or vaginal descent.

G Alessandro Digesu *et al.*, also found a poor correlation between prolapse and storage urinary symptoms. But symptoms like 'feeling of incomplete bladder emptying'andthe 'need ofstrainingduringmicturition'wereassociatedwith prolapse.In contrast to these findings other study has shown that occult stressincontinence, detrusor instability and urethral hypermobility were associated with prolapse. These conditions are storage disorders.[9,10]

CONCLUSION

Urinary storage symptoms like stress urinary incontinence, urge incontinence, frequency and nocturia were commonly presentinstudy population.Butthere was no association of these symptoms with increasing degree of prolapse and raised PVR.

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