

INFLUENCE OF PELVIC ORGAN PROLAPSE AND PRIOR HYSTERECTOMY ON SYMPTOMS IN WOMEN PRESENTING TO A UROGYNECOLOGY CLINIC AT A TERTIARY CARE HOSPITAL

Hypothesis / aims of study

This study was carried out to analyze the influence of pelvic organ prolapse (POP) and prior hysterectomy (PH) on presenting symptoms in women attending a urogynecology clinic at a tertiary care hospital.

Study design, materials and methods

This is a retrospective study evaluating the influence of hysterectomy and POP on the presenting symptoms in 553 women attending a urogynecology clinic at a tertiary care hospital in India over a 5year period. By definition, all these women had some urogynecology symptom. Asymptomatic patients evaluated as a part of health checkups were excluded from the analysis.

Data regarding hysterectomy status (NH, no hysterectomy 445 patients; PH, prior hysterectomy 108 patients), age, parity, mode of delivery, stress incontinence, urgency incontinence alone, overactive bladder (OAB) symptoms (including urgency incontinence), voiding difficulty, feeling of vaginal bulge, difficulty in defecation (splinting or constipation), fecal incontinence and backache were analyzed.

Statistical analysis was performed after POP-Q stage stratification. Each symptom was analyzed for the difference in distribution by POP stage and hysterectomy status. The total number of patients with each symptom in the NH and PH groups was then analyzed (irrespective of degree of prolapse). Finally, analysis was performed for the distribution of symptoms across various stages of POP for the entire data (irrespective of the hysterectomy status). Chi square analysis and t-test was performed as relevant ($p < 0.05$ considered significant).

Results

The women were aged 19years to 76 years. The mean age was similar in both the NH and PH groups (49.3 vs 50.4years, p value n.s.) in both groups as was the parity (2.5 vs 2.4, p value n.s.). Only 4% of the women had not had any vaginal delivery and this was similar in both groups. There was no difference in the POP stage distribution of both urinary (table 1) and non-urinary (table 2) symptoms between the two groups. However, women with PH were more likely to present with stress incontinence, urgency incontinence and OAB (table 1).

Table 1 Urinary symptoms stratified by stage of prolapse and hysterectomy (NH, No hysterectomy; PH, prior hysterectomy). Chi-square analysis for distribution of parameter by stage of prolapse and by overall distribution of parameter in the NH and PH groups.

Stage	Total NH	Total PH	SUI (NH)	SUI (PH)	OAB (NH)	OAB (PH)	UI (NH)	UI (PH)	Void diff (NH)	Void diff (PH)
0	90	21	41	15	55	14	18	8	6	0
I	117	30	66	16	40	17	17	11	5	6
II	121	28	58	22	48	18	21	5	10	2
III	100	18	47	10	32	6	6	1	8	3
IV	17	11	12	7	5	5	0	1	3	2
NH vs PH	p=0.08		p=0.32		p=0.15		p=0.22		p=0.13	
Total	445	108	224	70	180	60	62	26	32	13
NH vs PH	***	***	p=0.007		p=0.004		p=0.01		p=0.10	

SUI stress urinary incontinence, OAB overactive bladder, UI urgency incontinence, Void diff- voiding difficulty

Table 2 Non-urinary symptoms stratified by stage of prolapse and hysterectomy (NH, No hysterectomy; PH, prior hysterectomy). Chi-square analysis for distribution of parameter by stage of prolapse and by overall distribution of parameter in the NH and PH groups.

Stage	Vaginal bulge (NH)	Vaginal bulge (PH)	Splinting/constipation (NH)	Splinting/constipation (PH)	Fecal inc (NH)	Fecal inc (PH)	Backache (NH)	Backache (PH)
0	2	1	4	0	0	1	6	2
I	12	2	7	1	8	0	6	1
II	10	6	6	3	6	6	7	4
III	29	7	7	0	3	3	8	4
IV	13	4	4	3	1	2	4	2
NH vs PH	p=0.57		p=0.18		p=0.09		p=0.87	
Total	66	20	28	7	18	7	31	13
NH vs PH	p=0.34		p=0.94		p=0.27		p=0.08	

Fecal inc- fecal incontinence

The overall analysis showed that women with higher stages of POP were more likely to present with a feeling of vaginal bulge and backache and were less likely to suffer from storage symptoms or urgency incontinence (table 3).

Table 3 Symptoms stratified by stage of prolapse for all patients analyzed by chi square test

Stage	Total	SUI	OAB	UI	Voiding diff	Vaginal bulge	Splinting for bowel	Fecal Inc	Backache
0	90	56	69	26	6	3	4	1	8
I	117	82	57	28	11	14	8	8	7
II	121	80	66	26	12	16	9	9	11
III	100	57	38	7	11	36	7	4	12
IV	17	19	10	1	5	17	7	3	6
p value	***	p=0.37	p=0.000	p=0.001	p=0.29	p=0.000	p=0.85	p=0.12	p=0.04

Fecal inc- fecal incontinence, voiding diff- voiding difficulty

Interpretation of results

Women who had undergone hysterectomy prior to presenting to the urogynecology unit were more likely to be suffering from stress and urgency incontinence or overactive bladder. Non-urinary symptoms were not affected by the hysterectomy status, suggesting that changes in the pelvic dynamics related to the hysterectomy had an impact primarily on the anterior compartment symptoms. Overall, women with higher stages of prolapse were more likely to present with a symptomatic vaginal bulge and backache. The significantly higher symptoms of overactive bladder and urgency incontinence in lower stages of prolapse was intriguing. However, these patients were self-selected to be symptomatic and the average age of the women was about 50years. Women with lower stages of POP necessarily needed to have at least one urogynecology symptom to have presented to the department and this fact might have partly accounted for the finding.

Concluding message

Women with prior hysterectomy presenting to the urogynecology unit are more likely to be suffering from storage symptoms- stress and urgency incontinence as well as overactive bladder, irrespective of the presence of prolapse. Non-urinary urogynecology symptoms are not influenced by prior hysterectomy. Vaginal bulge and backache are more common in higher stages of prolapse while overactive bladder and urge incontinence were more common in lower stages of prolapse.

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<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Institutional Ethics Committee, Medwin Hospital, Hyderabad
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes