ORIGINAL RESEARCH

A clinical study of urinary problems in females, their incidence, probable etiology, clinical assessment and management

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ABSTRACT

Background: Urinary problems are very frustrating to women and not relieved easily. . The reasons are their low education level, financial status and unawareness for their health specially in Indians and specifically in rural and slum areas. . The reasons are their low education level, financial status and unawareness for their health specially in Indians and specifically in rural and slum areas.

Methods: an observational study of 170 female patients coming with any urinary problems in surgery and gynaecolgy OPD CRGH hospital

Results: urinary problems were assessed and comparative study done for age distribution, urinary complaints distribution with percentage, Complaints according to no. of vaginal deliveries, Complaints according to history of pelvic surgeries, Complaints according to patient education status.

Conclusion: urinary problems are very frustrating to patients and not relieved easily which leads to either multi practitioner approach by the patients or they consider them to be normal phenomenon with increasing age and did not come for follow up. This bunch of society needs to be properly diagnosed, counselled, motivated and combined effort of uro-gynaecologist, physiotherapist, and psychologist should be provided in every tertiary medical centre for better treatment of patients, to make them comfortable and improve their quality of life Indian women.

INTRODUCTION

Problems related to urinary symptoms are very frustrating to women and not relieved easily. Urinary problems are more in females than in males of all ages. Millions of Indians affected, and these urinary problems affect grade of life of most of the people. Because of these urinary problems, females get frustrated and embarrassed and they don't take any consultation. The reasons are their low education level, financial status and unawareness for their health specially in Indians and specifically in rural and slum areas. The percentage of male patients is less than female patients with urinary tract symptoms. Difference in anatomy is the main reason because females have wider pelvis outlet than males which later results in weakness of pelvic floor.[1,2] Physiology is the next reason in sequence of changes in hormones with age which results in female physiology of genitourinary tract and symptoms[3,4]. Parity of the patients and multiple deliveries (vaginal) can cause trauma to pelvis and its supports which is main factor for normal functioning of lower urinary tract. Many pelvis surgeries also cause trauma to pelvic structures, so these are also important factors of urinary problems[4,5]. The urinary problems and symptoms which occurs are- burning micturition, Urinary frequency, Urinary urgency, Stress incontinence, Urge incontinence, Mixed incontinence, Incomplete voiding, Dribbling of urine, Pain while urination, Hematuria.

AIMS AND OBJECTIVE

- Identify urinary problems in women in Surgery OPD of our institute.
- Analyze symptoms related to lower urinary tract, in females are presenting on the basis of detailed history and clinical examination.

- Identify the probable cause of urinary problems and associated factors in Indian females with age distribution and various factors.
- Advice them empirical treatment and investigation for further management.
- Provide them proper information, counselling, regarding their problem and available treatment options and encourage them for follow up.

MATERIAL AND METHODS

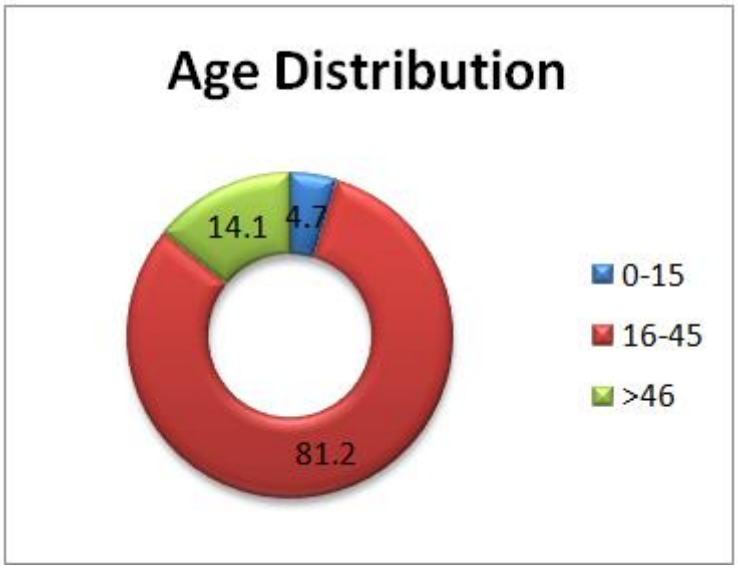
This is an observational study of 170 patients attending surgery and gynaecology OPD of C.R, Gardi hospital for any urinary complains. Inclusion criteria-All female patients, coming with any urinary problems in surgery and gynaecolgy OPD CRGH hospital will be included. Exclusion criteria-Any patient with urogenital fistula and major co-morbidity like malignancies of urogenital tract (cervix, urinary bladder, uterus, vagina, ovary etc)

Detailed history of related complaints.:1) Complete history of complaints including obstetric and gynaecologic history(any pelvic surgeries , trauma to pelvis, history of catheterization. 2)General and local examination, including per vaginal and per speculum examinations.3) Empirical treatment was given on the basis of clinical diagnosis and investigations.

RESULTS

Table: 1 Age distribution of Cases

Age Group	Frequency	Percent
0-15	8	4.7
16-45	138	81.2
46-60	24	14.1
TOTAL	170	100

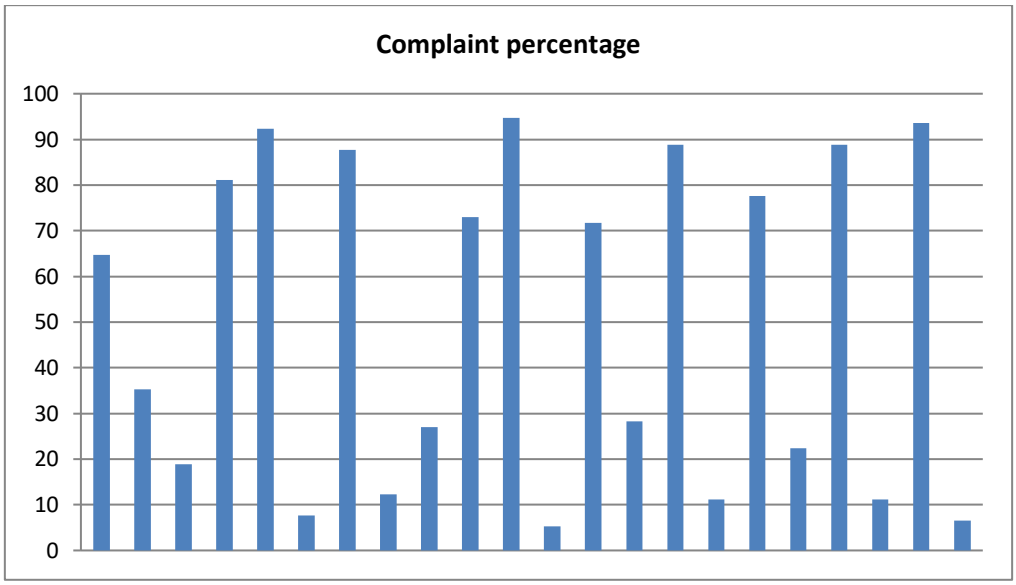


The mean age of the study population is 32.05± 8.45 years Median age as 28 years, mode was 25 years, minimum age was 9 year and maximum age was 85 year. Maximum number of respondents (81.2%) belonged to 16 – 45 years age group

Table: 2 Complaint distribution and percentage

Complaints		N	%
Frequency	Normal	110	65
	Increased	60	35
Burning Micturation	No	32	19
	Yes	138	81
Retention	No	157	92
	Yes	13	8
Dysuria	Absent	149	88
	Present	21	12
Lower Abdominal Pain	No	46	27
	Yes	124	73
Hematuria	No	161	95
	Yes	9	5
Urgency	No	122	72

	Yes	48	28
Incomplete Voiding	No	151	89
	Yes	19	11
Constipation	No	132	78
	Yes	38	22
Urinary incontinence CLS	No	151	89
	Yes	19	11
Urinary Incontinence Urge	No	159	94
	Yes	11	6



Normal	Increased	No	yes	No	Yes	Abent	Present	No	Yes	No	Yes	No	yes	No	Yes	No	Yes	No	Yes	No	Yes
Frequ-ency				Reten-sion		Dys-uria		Lower Abdominal		Hemat-uria		Urgency		Incomplete Void-ing		Constipation		Urinary Incontinence CLS		Urinary incontinence urge	

Table: 3 Urinary Complaints according to no. of vaginal deliveries

		No. of Vaginal Deliveries				P- value
		less than 2		more than 2		
		N	%	N	%	
Menstrual History	premenopausal	70	50.0%	70	50.0%	0.507
	postmenopausal	13	43.3%	17	56.7%	
Frequency	normal	53	48.2%	57	51.8%	0.821
	increased	30	50.0%	30	50.0%	
Burning Micturition	no	19	59.4%	13	40.6%	0.185
	yes	64	46.4%	74	53.6%	
Retention	no	77	49.0%	80	51.0%	0.841
	yes	6	46.2%	7	53.8%	
Dysuria	no	75	50.3%	74	49.7%	0.293
	yes	8	38.1%	13	61.9%	
Lower abdomen Pain	no	23	50.0%	23	50.0%	0.852
	yes	60	48.4%	64	51.6%	
Haematuria	no	79	49.1%	82	50.9%	0.787
	yes	4	44.4%	5	55.6%	
Urgency	no	63	51.6%	59	48.4%	0.242
	yes	20	41.7%	28	58.3%	
Incomplete Voiding	no	80	53.0%	71	47.0%	0.002
	yes	3	15.8%	16	84.2%	

Constipation	no	59	44.7%	73	55.3%	0.045
	yes	24	63.2%	14	36.8%	
Urinary incontinence CLS	no	73	48.3%	78	51.7%	0.725
	yes	10	52.6%	9	47.4%	
Urinary incontinence Urge	no	77	48.4%	82	51.6%	0.695
	yes	6	54.5%	5	45.5%	
Catheterization	no	78	49.4%	80	50.6%	0.607
	yes	5	41.7%	7	58.3%	

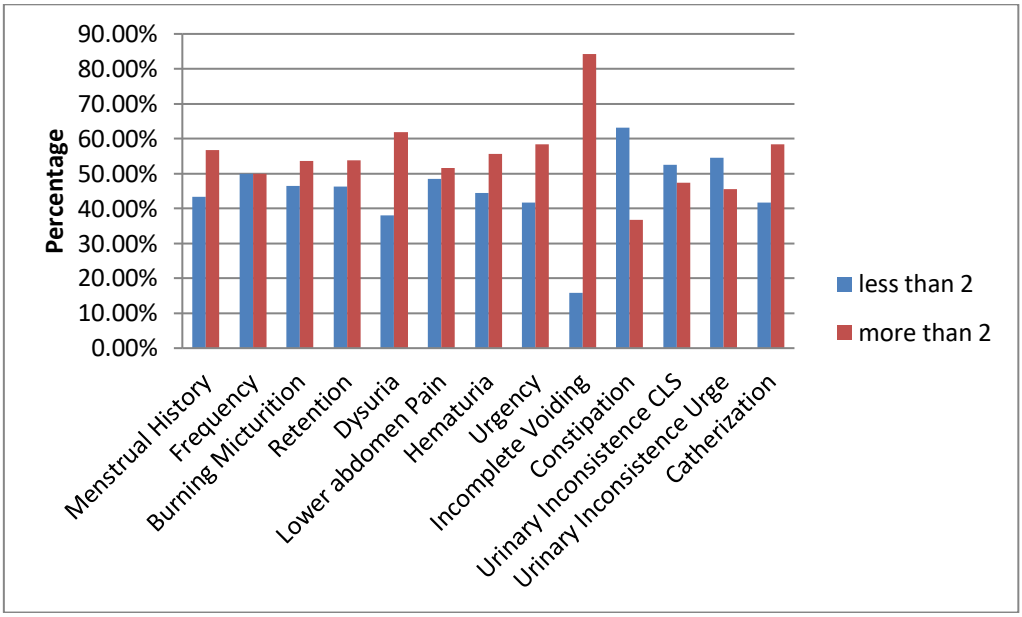


Table 3 indicate that, menstrual history, frequency, burning micturition, retention, dysuria, lower abdomen pain, haematuria, urgency, constipation, urinary incontinence with coughing, laughing, sneezing, urinary incontinence with urge, and catheterization were not found significantly associated ($p>0.05$) with number of vaginal deliveries. Only incomplete voiding was found to be significantly associated to number of vaginal deliveries. If the age increases than prevalence of incomplete voiding was significantly increases.

Table: 4 Urinary Complaints according to history of pelvic surgery

		Pelvic Surgery				P- value
		no history		history present		
		N	%	N	%	
Menstrual History	premenopausal	73	52.1%	67	47.9%	0.906
	postmenopausal	16	53.3%	14	46.7%	
Frequency	normal	56	50.9%	54	49.1%	0.610
	increased	33	55.0%	27	45.0%	
Burning Micturition	no	23	71.9%	9	28.1%	0.014
	yes	66	47.8%	72	52.2%	
Retention	no	83	52.9%	74	47.1%	0.641
	yes	6	46.2%	7	53.8%	
Dysuria	ABSENT	80	53.7%	69	46.3%	0.352
	PRESENT	9	42.9%	12	57.1%	
Lower abdomen Pain	no	18	39.1%	28	60.9%	0.036
	yes	71	57.3%	53	42.7%	
Haematuria	no	85	52.8%	76	47.2%	0.625
	yes	4	44.4%	5	55.6%	
Urgency	no	73	59.8%	49	40.2%	0.002
	yes	16	33.3%	32	66.7%	
Incomplete Voiding	no	75	49.7%	76	50.3%	0.04
	yes	14	73.7%	5	26.3%	
Constipation	no	62	47.0%	70	53.0%	0.009
	yes	27	71.1%	11	28.9%	

Urinary incontinence CLS	no	77	51.0%	74	49.0%	0.317
	yes	12	63.2%	7	36.8%	
Urinary incontinence Urge	no	79	49.7%	80	50.3%	0.008
	yes	10	90.9%	1	9.1%	
Catheterization	no	77	48.7%	81	51.3%	0.001
	yes	12	100.0%	0	0.0%	

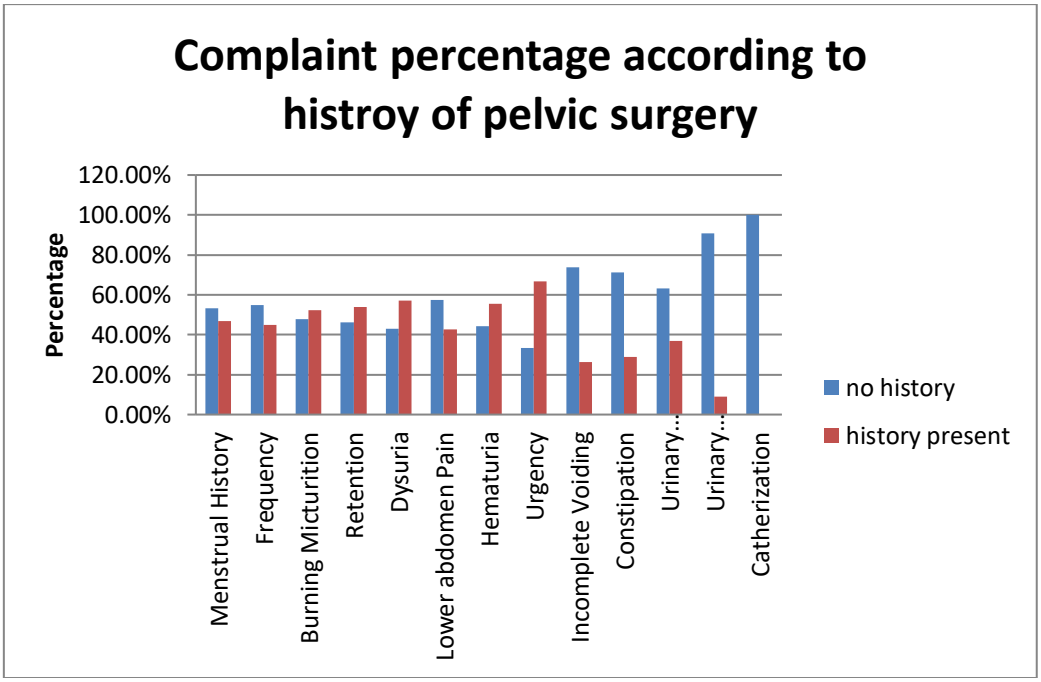
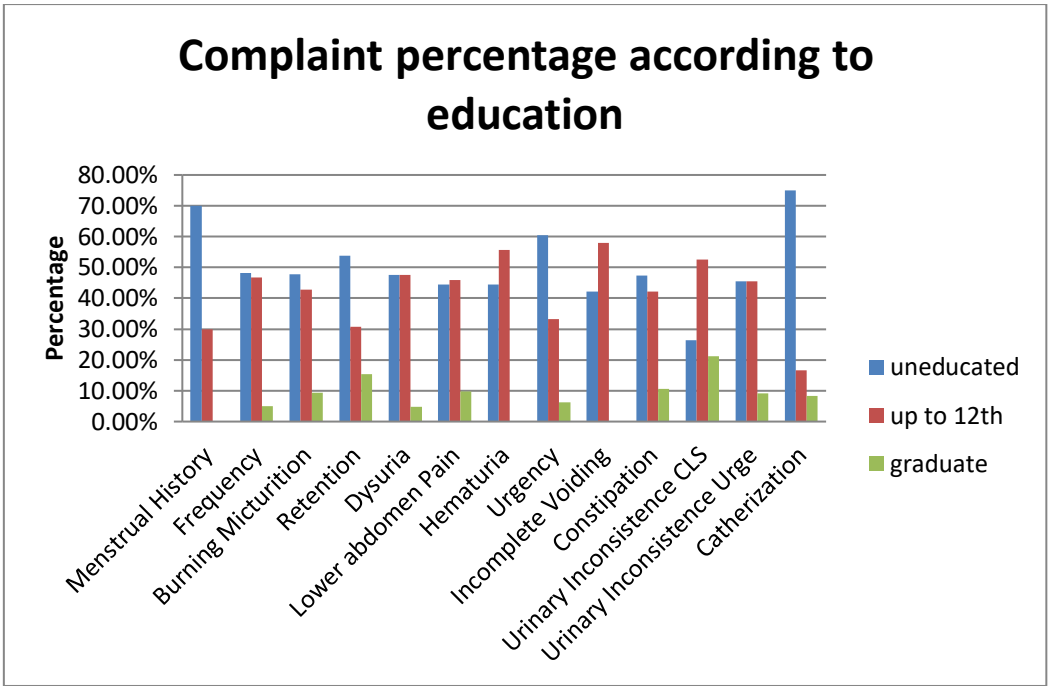


Table: 5 Urinary Complaints according to education

		Education level						P- value
		uneducated		up to 12th		graduate		
		N	%	N	%	N	%	
Menstrual History	premenopausal	58	41.4%	69	49.3%	13	9.3%	0.01
	postmenopausal	21	70.0%	9	30.0%	0	0.0%	
Frequency	Normal	50	45.5%	50	45.5%	10	9.1%	0.628
	Increased	29	48.3%	28	46.7%	3	5.0%	
Burning Micturition	No	13	40.6%	19	59.4%	0	0.0%	0.088
	Yes	66	47.8%	59	42.8%	13	9.4%	
Retention	No	72	45.9%	74	47.1%	11	7.0%	0.374
	Yes	7	53.8%	4	30.8%	2	15.4%	
Dysuria	Absent	69	46.3%	68	45.6%	12	8.1%	0.868
	Present	10	47.6%	10	47.6%	1	4.8%	
Lower abdomen Pain	No	24	52.2%	21	45.7%	1	2.2%	0.233
	Yes	55	44.4%	57	46.0%	12	9.7%	
Haematuria	No	75	46.6%	73	45.3%	13	8.1%	0.628
	Yes	4	44.4%	5	55.6%	0	0.0%	
Urgency	No	50	41.0%	62	50.8%	10	8.2%	0.072
	Yes	29	60.4%	16	33.3%	3	6.2%	
Incomplete Voiding	No	71	47.0%	67	44.4%	13	8.6%	0.302
	Yes	8	42.1%	11	57.9%	0	0.0%	
Constipation	No	61	46.2%	62	47.0%	9	6.8%	0.702
	Yes	18	47.4%	16	42.1%	4	10.5%	
Urinary incontinence CLS	No	74	49.0%	68	45.0%	9	6.0%	0.029
	Yes	5	26.3%	10	52.6%	4	21.1%	
Urinary incontinence Urge	No	74	46.5%	73	45.9%	12	7.5%	0.983
	Yes	5	45.5%	5	45.5%	1	9.1%	
Catheterization	No	70	44.3%	76	48.1%	12	7.6%	0.097

	Yes	9	75.0%	2	16.7%	1	8.3%	



DISCUSSION

This is an observational study of 170 patients attending surgery and gynaecology OPD of C.R, Gardi hospital for any urinary complains. Burning micturation was the most common urinary complain of females followed by increased frequency of micturition. Studies in middle-aged women also support a high prevalence of constipation (22 %) among patients suffering from urinary tract dysfunction.

AGE: maximum prevalence of burning micturition, dysuria was found in 16 -45 age group. The prevalence ofretention of urine was found significantly associated to age group, if the age increases then prevalence of retention of urine also significantly increases. The prevalence of lower abdomen pain, urgency of urine, incomplete voiding, constipation and urinary incontinence with coughing, laughing, sneezing and haematuria was not significantly associated to age group of cases but maximum prevalence was found in 16 -45 age group. Young adult women are not exempt from the presence of urinary symptoms, although the clinical status and prognosis seem to worsen with age

PELVIC SURGERY: In present study it was found that burning micturation, lower abdomen pain, urgency, incomplete voiding, constipation and urinary incontinence urge were found to be significantly associated topelvic surgery.

If severe prolapse occurs, difficulty passing urine rather than incontinence can develop. Severe prolapse can also be accompanied by difficulties with bowel movements (constipation, hemorrhoids), sexual function complaints.The most typical of these sexual complaints include pain in the vagina, pain in the pelvic region, loss of sensation in the vagina and/or clitoris, and difficulty or inability to achieve orgasm with vaginal penetration. Voiding problems with the need to manually reduce the prolapse to urinate correlates with more severe stages of anterior wall prolapse. A more vague feeling of bladder-emptying problems may be reported by 30–50% of patients without specific relation to the prolapsed compartment.[7,8]

NO OF VAGINAL DELIVERIES: In present study it was found that only incomplete voiding was significantly associated to number of vaginal deliveries. There is evidence that the main etiology of urinary infection is more in vaginal deliveries, risk increases for multiparous women, and that other factors such as the use of forceps and vacuum extraction, werenot associated with the problem.[9,10,11] A possible explanation for this is ,during vaginal delivery, there is unnoticeable distension or rupture of muscles, ligaments, and nerves which are responsible for bladder control . Peeker and Peeker claim that pregnancy itself involves the risk of developing urinary infection, a risk that increases when associated with vaginal delivery and multiparity [12]. The authors also found that after vaginal delivery, the prevalence of urinary infection increases from 30 to 50%. Thus, the data shown lead us to conclude that young women are not exempt from the presence of the several urinary infection symptoms, given that more than half of the women studied had one or more urinary symptom. Of the analyzed symptoms, the most prevalent was the urinary incontinence ,

incomplete voiding and burning micturition. In most of studies analysis showed, increase in number of pregnancy and delivery were associated with the urinary symptoms, regardless of the method of delivery.

EDUCATION: In present study among symptoms of UTI, it was found that urinary incontinence was significantly associated with level of education. It is evident that there is a strong statistical significant association between education of the study subject.[13]

CONCLUSION

Urinary infection is a common disorder in Indian women, and many risk factors may affect the development of urinary infection. Aging, overweight, lack of education, pregnancy history, pelvic surgery, gynecological disease(such as menstrual disorders, pelvic floor prolapsed) , constipation, fecal incontinence and other chronic diseases are a few examples of such factors. This bunch of society needs to be properly diagnosed, counselled, motivated and combined effort of uro-gynaecologist, physiotherapist, and psychologist should be provided in every tertiary medical centre for better treatment of patients, to make them comfortable and improve their quality of life.

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