



URINARY INCONTINENCE IN WOMEN AND THE MAJOR RISK FACTORS

¹**Dr. Nandita Biswas** and ²**Dr. Arup Jyoti Rout**

¹Department of Gynaecology and Obstetrics, North Bengal Medical College and Hospital, Darjeeling, West Bengal, India.

²Department of Community Medicine, Mata Gujri Memorial Medical College, Kishanganj, Bihar, India.

***Author for Correspondence: Dr. Nandita Biswas**

Department of Gynaecology and Obstetrics, North Bengal Medical College and Hospital, Darjeeling, West Bengal, India.

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ABSTRACT

Introduction- Urinary incontinence though common in the reproductive age group women, is often underreported. Factors like age, pregnancy and childbirth, excessive body weight have been reported as risk factors for future development of incontinence in women. **Methods-** 340 women of reproductive age group attending gynaecological OPD were interviewed regarding presence of urinary incontinence, parity, mode of delivery, birth weight of baby etc. BMI calculated for each respondent. **Statistical analysis-** was done by Chi Square test. **Results-** Prevalence of incontinence in the study population was 18.24%. Among the incontinent women, 14.51% were of <25 year age group whereas 33.87% were >35 year in age. 69.35% women in the incontinent group were multipara. 64.99% of incontinent women were delivered vaginally among whom 11.66% had instrumental vaginal delivery. 35% had caesarian section. 63.9% of incontinent women were either overweight or obese with BMI >25. **Conclusion-** Incidence of urinary incontinence in women increases with advancing age and parity. Caesarian section does not give protection against future development of urinary incontinence. Obesity is another independent risk factor in this regard.

KEYWORDS: Urinary incontinence, pregnancy, childbirth.

INTRODUCTION

Urinary incontinence in women is common and a frequently reported symptom in the gynaecological OPD. These women represents only the tip of the iceberg as majority do not seek treatment and suffer in silence. Few take it up as a shame and others do not raise the issue as they think surgery to be the only treatment option what they are really afraid of. The degree to which women are bothered by leakage is influenced by various factors, including cultural values and expectations regarding continence and incontinence.

Increasing age, parity, childbirth, obesity has always been considered risk factors for urinary incontinence.^[1] Medical disorders like diabetes mellitus, strokes and spinal cord injuries are also known to be associated. Whether incontinence occurs or increases after hysterectomy is still controversial and different studies have shown contradictory results. In the present study attempt was made to find correlation between urinary incontinence and risk factors related to pregnancy and childbirth.

MATERIAL AND METHOD

340 women in the reproductive age group 20-40 years who presented to the OPD with some gynaecological

symptoms were interviewed. They were provided with a proforma containing a set of questions regarding presence of any urinary incontinence, age, parity, mode of delivery, weight of baby etc. Weight and height of all women were taken and BMI calculated. Data were analysed by trained statistician.

RESULTS

Among the respondents, 9 admitted of having transient urinary incontinence previously, 62 had incontinence at present and 269 never had such complaint. The incidence therefore comes to be 18.24%.

AGE

There was rising incidence of urinary incontinence with advancing age. Only 9 (14.51%) were less than 25 years old whereas 21 (33.87%) women belonged to age group 36-40 years.

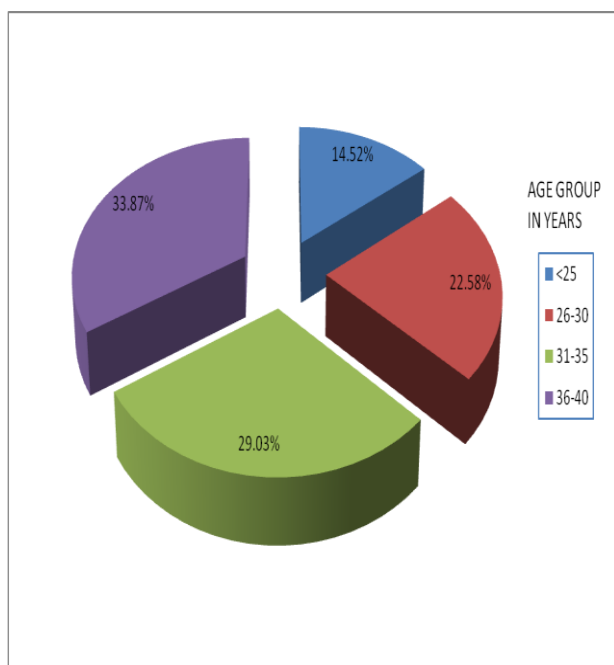


Fig 1. Pie chart showing the age distribution of incontinent women

PARITY

Out of 62 women with incontinence, 1 was infertile, one had a spontaneous miscarriage at first trimester and could not conceive thereafter. 17 (27.41%) were primipara and 43 (69.55%) were multipara. Among the continent women, 142 (52.78%) were primipara and 121 (44.98%) were multipara. 6 women were either infertile or did not have a pregnancy up to viability. Chi square test gives a p value of 0.0015 which is statistically significant.

TABLE 1: Parity wise distribution of incontinent and continent women

PARITY	INCONTINENT WOMEN		CONTINENT WOMEN	
	no	%	no	%
0	2	3.22	6	2.23
1	17	27.41	142	52.78
≥2	43	69.35	121	44.98

MODE OF DELIVERY

Among the 60 incontinent women who gave birth to a viable baby, 21 (35%) had caesarian section. 39 (65%) women underwent at least one vaginal delivery, either spontaneous or instrumental. 5 women had both vaginal delivery and caesarian section- they were included in the vaginal delivery group during statistical evaluation. Among the continent women, 31.26% had caesarian section and rest of 68.74% had at least one vaginal delivery. p value by chi square test is >0.05 and it is not significant.

Table 2: Mode of delivery among incontinent and continent women

MODE OF DELIVERY	INCONTINENT WOMEN		CONTINENT WOMEN	
	no	%	no	%
Normal Delivery	32	53.34	157	59.71
Instrumental Delivery	7	11.66	24	9.03
Caesarian Section	21	35	82	31.26

BMI

Among the incontinent group, 23 (37%) women had normal body weight with BMI<25. 39 women were either overweight (n=34, 54.83%) or obese (n=5, 8.06%). Among the continent women, only 37.92% were above the normal weight category. p value of <0.001 implies that body weight has statistically significant correlation with urinary incontinence in our study population.

Table 3: Comparison of BMI of incontinent and continent women

BMI	INCONTINENT WOMEN		CONTINENT WOMEN	
	no	%	no	%
<25	23	37.10	167	62.08
25-29.9	34	54.83	71	26.39
≥30	5	8.07	31	11.53

Birth weight of baby

24 (40%) women with incontinence had maximum birth weight of baby above 3 kg and 36 (60%) had less than 3kg babies at birth. In the other group, 43.73% women had birth weight of baby above 3kg, which is not statistically significant.

DISCUSSION

Incontinence is a common and distressing condition and the incidence increases with age. EPINCONT study showed a linear relationship between the prevalence of incontinence and age.^[2] Present study shows a similar result.

In most studies parity is strongly associated with urinary incontinence in younger women.^[3] Diminution of strength of levator ani muscle, descent of bladder neck, partial denervation of pudendal muscles are the known changes after pregnancy and childbirth that predispose women to stress urinary incontinence.^[4] In the present study, almost 70% women with incontinence were multipara and only 27.41% were primipara. In the EPINCONT study in 2001, parity was associated with stress and mixed type of incontinence with relative risk of 2.2 and 3.3 for primipara and multipara respectively.

The relationship between mode of delivery and subsequent development of urinary incontinence is still not clear. Different studies have shown contradictory results. Some studies have shown that caesarian section may be protective to pelvic floor and development of urinary incontinence while others failed to find a

protective effect of the same.^[5] In our study 35% women with incontinence were delivered by caesarian section and rest 65% by vaginal route, either spontaneous or instrumental. Among the continent women 31.26% were delivered by caesarian section. Analysis by chi square test revealed no statistically significant correlation between mode of delivery and future development of urinary incontinence in our study subjects ($p > 0.05$).

Birth weight of the baby could not be correlated to development of future incontinence in the present study. Body weight of the subject, on the other hand, may have some correlation with development of incontinence as was found in some other previous studies. EPINCONT study showed a dose-response relationship between BMI and severe urinary incontinence in female. In our study, 63% women with incontinence were either overweight or obese. On the other hand, 37.92% women in the continent group had more than normal body weight, which is statistically significant ($p < 0.001$).

CONCLUSION

Urinary incontinence is a distressing condition and is known to have a significant effect on the quality of life. The percentage of women suffering from incontinence increases with advancing age. It is more common in multipara in comparison to primipara. Urinary incontinence although occurs more commonly after vaginal delivery, it is not uncommon after caesarian section. Obesity is another independent risk factor for incontinence.

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