

**Research Article**



**Mode of delivery: Urinary incontinence and sexual dysfunction**

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**Abstract**

**Background:** Sexuality can be embarrassing for many people to discuss. The same goes for incontinence. So it can be doubly difficult to address when incontinence gets in the way of a satisfying sex life. This study is to find the relation between the mode of delivery and incontinence, and evaluating sexual dysfunction as a problem of incontinence. **Patients and methods:** Retrospective study was done on 300 cases department of Obstetrics and Gynecology at Sohag teaching hospital from December 2012 to August 2013. The women were classified into 2 groups , ( group 1 = 150 women ) have previous normal vaginal and (Group 2= 150 women) have previous caesarean section. The presence of urinary incontinence and sexual dysfunction was evaluated in both groups. **Conclusion:** The results of this study have led us to conclude that the risk of urinary incontinence is higher among women who have had vaginal deliveries than among women who have had cesarean sections. The incidence of reporting sexual dysfunction as a problem with urinary incontinence is higher in women with vaginal delivery.

**Keywords:** urinary incontinence, mode of delivery, sexual dysfunctions, problem.

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**Introduction**

Urinary incontinence is defined by the *International Continence Society (ICS)* as the involuntary loss of urine that represents a hygienic or social problem to the individual. (Abrams P. et al, 2010). Four types of urinary incontinence are defined in the *Clinical Practice Guideline issued by the Agency for Health Care Policy and Research:* stress, urge, mixed, and overflow. Some authors include functional incontinence as a fifth type of incontinence. (Rogers RG. 2008). Female sexual dysfunction is defined as persistent, recurrent problems with sexual response or desire that distress or strain the relationship with the other partner .

Many women experience problems with sexual function at some point in their lives. Female sexual dysfunction can occur at all stages of life, and it may be ongoing or happen only once in a while.

Types of female sexual dysfunction include:

- Low sexual desire. Diminished libido or lack of sex drive.
- Sexual arousal disorder. Desire for sex might be intact, but there is difficulty or disability to become aroused or maintain arousal during sexual activity.
- Orgasmic disorder persistent or recurrent difficulty in achieving orgasm after sufficient sexual arousal and ongoing stimulation.
- Sexual pain disorder. Pain associated with sexual stimulation or vaginal contact.

Sexual response involves a complex interaction of physiology, emotions, experiences, beliefs, lifestyle and relationships. Disruption of any of these components can affect sexual drive, arousal or satisfaction (Longo DL, et al. 2012)

The relationships of couples can be significantly affected by urinary incontinence. (Nilsson et al.2009) showed that 38% of women and 32% of men reported that the female partner’s incontinence impacted negatively on their relationship. Furthermore, 20% of women and 17% of men reported reduced intimacy, affection and physical proximity.

Sexual dysfunction is a common complaint among women suffering from urinary incontinence. Among women who seek medical help, 25–50% report problems associated with sexual function, including decreased sexual desire, anorgasmia and dyspareunia(SutherstJR.et al,2005)

**Patient and Methods**

Retrospective study was done on 300 cases that were selected from the outpatient clinic and in-patient department of Obstetrics and Gynecology at Sohag teaching hospital from December 2012 to August 2013. The cases were subjected to: Careful history taking, the initial BMI (kg/m<sup>2</sup>) was calculated for each case, Careful clinical examination, Routine laboratory investigation (Hb, blood sugar, and urine analysis) and Notification of each studied case in individual clinical sheet. The study was depending on screening

questions about Incontinence formulated in a questioner to be easy for obtaining the data.Including PISQ-12 Questioner.

**Statistical analysis:**

Data was collected, tabulated and statistically analyzed.Analysis of data was done by IBM computer using SPSS (statistical program for social science version 12). Descriptive data were reported as frequency, percentage, mean, median, standard deviation (S.D.) for the comparison of result, Student t-test, Pearson’s chi-Square. A p-value of less than 0.05 was considered statistically significant difference.

**Results**

Table (1): shows sociodemographic characteristics for the study groups.

Table (2): shows the prevalence of Symptoms of incontinence after delivery in GI and G2 according to characteristics of study participants.

Table (3): shows sexual dysfunctions after delivery in GI and G2 and their subgroups.

Table (4): shows sexual dysfunctions as a problem in urinary incontinence after delivery in GI and G2and subgroups.

**Table (1) Demographic criteria in Group I and Group 2**

	(G1)(NVD)		(G2)(CS)		P value
	Number	%	Number	%	
<b>Age (Years)</b>					
• 19 -29 (g1)	83	55.33%	69	46%	0.623
• 30 - 39 (g2)	67	44.66%	81	54%	0.457
<b>Parity</b>					
• Primi (g1)	3	2%	24	16%	0.158
• P1&P2 (g2)	45	30%	77	51.33%	0.097
• P3&P4 (g3)	102	68%	49	32.66%	0.103
<b>BMI (kg/m2).</b>					
• 18.5-20 (g1)	41	27.33%	53	35.3%	0.111
• 21-22 (g2)	25	16.66%	41	27.33%	0.711
• 23- 25 (g3)	84	56%	56	37.33%	0.816

*NVD: normal vaginal delivery**BMI: body mass index**CS: Caesarian section*

**Table. 2 Urinary incontinence after delivery in G1 and G2 and theirs subgroups**

	(G1) NVD		(G2) CS		P value
	No.	%	No.	%	
Age(all cases)	74	49.3%	21	14%	0.000
• 19-29 (g1)	32	43.24%	8	38.09%	0.000
• 35-39(g2)	42	56.75%	13	61.90%	0.000
Parity (all cases)	74	49.3%	21	14%	0.000
• P1&P2 (g2)	19	25.3%	11	52.3%	<b>0.001</b>
• P3&P4 (g3)	55	73.3%	10	47.6%	<b>0.000</b>

*NVD: normal vaginal delivery*

*CS: Caesarian section*

**Table (3):Sexual dysfunctions after delivery in G1 and G2and subgroups**

Sexual dysfunction	(G1) NVD		(G2) CS		P value
	No.	%	No.	%	
Age(all cases)	53	35.33%	17	11.33%	0.002
• 19-29 (g1)	19	35.84%	6	35.29%	0.072
• 30-39(g2)	34	64.15%	11	64.70%	0.001
Parity (all cases)	53	35.33%	17	11.33%	0.002
• P1&P2 (g2)	22	41.50%	6	35.29%	0.001
• P3&P4 (g3)	31	58.49%	11	64.70%	0.003

**Table (4):Sexual dysfunctions as a problem in urinary incontinence after delivery in G1 and G2and subgroups**

Sexual dysfunction with UI	(G1) NVD		(G2) CS		P value
	No.	%	No.	%	
Age (all cases)	10	13.51%	0	0%	<b>0.00</b>
• 19-29 (g1)	5	50%	0	0%	<b>0.00</b>
• 30-39(g4)	5	50%	0	0%	<b>0.00</b>
Parity (all cases)	10	13.51%	0	0%	<b>0.00</b>
• P1&P2 (g2)	3	30%	0	0%	<b>0.00</b>
• P3&P4 (g3)	7	70%	0	0%	<b>0.00</b>

## Discussion

Urinary incontinence (UI) is a common condition affecting adult women of all ages and can have a negative influence on quality of life. Pregnancy and delivery seem to be major risk factors among young and middle-aged women. However, the reported prevalence of urinary incontinence varies widely both during and after pregnancy. (Rortveit G, et al;2001), (Wesnes SL, et al;2007)

In postpartum cases UI is a disorder consisting of incontinence starting before, during and after pregnancy. In the present study, women who had delivered by cesarean section were at higher risk for any incontinence than were nulliparous women. Vaginal delivery was associated with a greater increase in risk. The risk of moderate or severe incontinence was also higher in the vaginal-delivery group than in the cesarean-section group. (Glazener CM, et al; 2006)

**In the present study it was found that; the prevalence of Symptoms of incontinence after delivery in G1 and G2 according to characteristics of study participants** The NVD always associated with symptoms after normal vaginal delivery more than CS. The increase in the age and the parity is usually associated with symptoms after delivery.

**In the present study, the result were agreed with a study** was done by (Zhonghuai. 2004) which done to evaluate the association of route of delivery in primiparae with prevalence of urinary incontinence. The study done to evaluate the association of route of delivery in primiparae with prevalence of urinary incontinence.

He was reported that; the incidence of urinary incontinence in spontaneous vaginal delivery, forceps and cesarean section was 38.6%, 43.8% and 18.0% respectively. There was no difference in the incidence of urinary incontinence between spontaneous vaginal delivery and forceps. A lower incidence of urinary incontinence was found in cesarean section than in other ways of delivery. Most patients have the symptoms of incontinence within one year after delivery, with some lasting for more than one year. Heavy fetal weight increases the risk of stress incontinence.

The SVD usually associated with increased frequency of leakage of urine after delivery. Amount of leakage

of urine after delivery distribution in G1 and G2 shows high significant results. The SVD always associated with increased amount of leakage of urine after delivery.

In the present study, the result were agreed with a study done by (Hamilton Boyles, et al; 2009) who reported that; Women who had vaginal deliveries were more likely to have urinary incontinence than women who had cesarean deliveries this risk increased with assisted delivery and perineal laceration. No statistical difference in the incidence of urinary incontinence was found among women who had elective cesarean deliveries (6.1%), women who had cesarean deliveries after laboring (5.7%) and women who had cesarean deliveries after laboring and pushing (6.4%).

This work also highlights the biologic mechanism by which parity may affect the continence mechanism. The majority of the negative effect on the continence mechanism seems to occur during the distal descent of the fetus through the vagina. Although we do not know the fetal station at the time of cesarean delivery in this study, fetal engagement, descent into the proximal vagina, and pushing do not seem to affect the continence mechanism appreciably. This distal descent may affect the continence mechanism through nerve injury, connective tissue damage, or muscle injury. (Lien, et al; 2004)

It is possible that the strain placed on the nerve is damaging only when the fetal head is low enough to deliver vaginally and the nerves are stretched to this extent. Alternately, it may be that the muscular attachments to the pelvic side walls are most likely to shear when the head delivers. Finally, the negative effect may be secondary to hypoxic muscle injury due to mechanical compression of the urethra by the fetal head. (Guise JM, et al;2008)

In the present study it was found that; *The prevalence Leakage of urine as a problem after delivery distribution in G1 and G2.* The SVD always associated with increased problems of urination after delivery. In the present study, the result were agreed with study done by (Lígia da, et al ;2012) case-control study evaluated whether UI in the puerperium compromises the health-related quality of life (HRQoL) and if so, in which aspects. A socio-demographic and clinical data questionnaire formulated and validated for the study, the International Consultation on Incontinence

Questionnaire - Short-Form (ICIQ-SF), the King's Health Questionnaire (KHQ) and the Medical Outcomes Study 36 - Item Short Form Health Survey (SF-36), were applied. The results of the ICIQ-SF showed that, in the puerperium, urinary loss, although in low quantities, was frequent and greatly compromised the quality of life. Using the KHQ, a high impact of UI was observed in the domains Incontinence Impact, Emotions, Daily Activity Limitations and Physical Limitations. The HRQoL of the control and case groups differed in the domains Physical Aspects, Pain, General Health Status, Vitality, Social Aspects and Mental Health of the SF-36, in which these were worse for the case group, revealing greater compromise of the HRQoL in these aspects due to the UI. Urinary incontinence significantly affects aspects of the physical and mental health of puerperae, especially those with MUI. In the present study it was found that; *the prevalence of Genital prolepses and sexual dysfunctions as a problem after delivery distribution in G1 and G2*

The SVD usually associated with increased genital prolepses and sexual dysfunctions after delivery. In the present study, the result were *agreed* with study done by (Williams A ,et al ;2007) The authors conducted a cross-sectional community survey to explore problems experienced by women in **Birmingham and Solihull, UK**, one year after childbirth. They found that: One year after giving birth, 87% of women experienced some type of perineal problem, 53.8% had some degree of stress incontinence and 36.6% had some degree of urge incontinence, 34.8% of women without perineal tears experienced stress incontinence vs 52.7 of women with a tear or episiotomy, 19.5% of women without perineal tears experienced urge incontinence, vs. 29.2% of women with a tear and 38% of women with episiotomy.

In the present study, the results were *agreed* with study done by: (Sinclair AJ.et al, 2011) which reveal that Women with urinary incontinence have a significantly poorer quality of life than their continent counterparts. Between 25–50% of women with urinary incontinence experience sexual dysfunction . Urinary incontinence commonly leaves the sufferer with psychological morbidity, particularly depression.

## Conclusion

Urinary incontinence has an impact on the quality of life and affects productivity and decreases activity levels in women. The results of this study have led us to conclude that the risk of urinary incontinence is higher among women who have had vaginal deliveries than among women who have had cesarean sections. The incidence of reporting sexual dysfunction as a problem with urinary incontinence is higher in women with vaginal delivery.

## Recommendations

Educational programs to emphasize the fact that incontinence is treatable will make it easier for more people to seek treatment for urinary incontinence. The different types of treatments currently available need to be highlighted and made readily available to the public. Coital urinary incontinence deserves much more attention in clinical practice: women should be specifically interviewed for this disturbance because it has a very negative impact on their sexuality.

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