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Case Series

Depression and quality of life in women with urinary incontinence attending a tertiary care centre from the Sub-Himalayan region: a case series

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ABSTRACT

Urinary incontinence (UI) is involuntary leakage of urine. It is of three types-stress, urge, and a mixture of two (mixed). Higher depression rates and poor quality of life (QoL) are found in women with UI. The psychological impact of UI often remains unaddressed due to sociocultural barriers to seeking medical help. We describe ten women with UI, presenting to the Gynaecology OPD of a tertiary care centre predominantly catering rural population of a hilly area. Questionnaire for UI diagnosis (QUID), patient health questionnaire-9 (PHQ-9) and World Health Organisation QoL-Brief version (WHOQOL-BREF)-Hindi were applied. Mean age of women presenting with UI was 52.7 +/- 10.2 years; mean BMI 22.5±4, PHQ-9 score was 8.1±4.9. Transformed scores of physical health on WHOQoL-Bref was 48.6±16.7, psychological health was 50.4±18.4, social relations was 40.4±32.0, environmental domain was 44.1±20.5, overall QoL rating was 57.5±17, health satisfaction was 50±28.9, total score 50.6 ±0.9. Four cases had urge, and 6 had Mixed UI respectively. Most belonged to low socio-economic status, had low literacy, were multiparous, menopausal and few had a long history of being symptomatic before seeking treatment. Some had other risk factors like UTI, pelvic infections, chronic constipation and pelvic surgery. Education or awareness about UI should be incorporated in perinatal care and routine screening for psychological distress and holistic management strategies addressing both physical and emotional aspects of UI are recommended.

Keywords: Urinary incontinence, Depression in UI, Quality of life in UI

INTRODUCTION

According to the International Continence Society (ICS), any involuntary leakage of urine is called urinary incontinence (UI). There are three types of UI– stress, urge, and a mixture of stress and urge incontinence (mixed).[1]

Among females, UI prevalence ranged between 12% and 100%, worldwide. A north Indian study using an online survey reports prevalence of 27.1 % among women aged 20-70 years.[2] The prevalence increases with age, which is over 50% in postmenopausal women. Thus, it is more common than diseases like diabetes or hypertension in this age group.[3]

Potential risk factors for UI include increasing age, parity, vaginal deliveries, obesity, pelvic surgery, diabetes mellitus, depression, constipation, and chronic respiratory problem.[4] It is an under-reported problem, despite visiting the doctors for other health problems, women prefer not to disclose UI problems.[5] About less than half of women

consult a physician.[6] In a study, 12% of women preferred to talk about their symptoms to only gynaecologist, provided they were females.[7]

As a result, such women are prone to skin infections, sexual dysfunction, loss of self-esteem, dependency, depression, increased caregiver burden, and economic cost.[8] Many affected women normalise UI, which ultimately takes a toll on their daily living and impacts their QoL, causing social isolation and restricted lifestyles.[9] Several studies have reported a significant negative impact on the QoL in the affected women.[3,8,9]

Factors such as type of UI, age, socioeconomic status, existing medical comorbidities, and the duration of UI symptoms can have negative impacts on condition-specific QoL.[10] Therefore, QoL is considered the preferred outcome measure for evaluating UI treatments.[4] The women are often reluctant to seek care, even though the condition is often treatable.[11] The major reasons include: a lack of knowledge that incontinence is abnormal, and that effective treatment is available.[7,11]

CASE SERIES

We describe the following cases of UI, presenting to gynaecology OPD of a tertiary care centre predominantly catering rural population of a hilly area.

Case 1

The 52 years, illiterate, married, homemaker, belonging to Hindu nuclear family, lower middle socio-economic status and urban background, symptomatic for 3 years, BMI-24 kg/m^2, married, age at first childbirth 18 years, vaginal delivery, birth wt. 2.6 kg, para-3, menopausal for 3 years, QUID: stress score 9, urge score 8, mixed UI, PHQ-9 score 7, transformed scores of WHOQoL-BREF: Physical domain=50, psychological health=29.17, social relationships=41.67, environment domain=50, overall QoL rating=50, health satisfaction=50 total score=50.

Case 2

The 54 years, middle pass, married, homemaker, belonging to Hindu nuclear family, low socio-economic status and rural background, symptomatic for 4 months, BMI-15.6 kg/m^2, age at first child birth 29 years, para-2, vaginal delivery, birth wt. of baby 2.5 kg, menopausal for 7 years, H/o UTI for 3 months, stress score 0, urge score 8, urge type UI, Phq-9 score 16, transformed scores of WHOQoL-BREF: Physical domain=42.86, psychological health=25, social relationships=16.67, environment domain=18.75, overall QoL rating=25, health satisfaction=25, total score=52.0.

Case 3

The 65 years, illiterate, farmer, married, belonging to lower middle socio-economic status, Hindu extended family of rural background, symptomatic for 2 months, BMI 17.2 kg/m^2, age at first child birth 25 years, para-8, vaginal deliveries, max. birth weight 4 kg, menopausal for 10 years, H/o UTI for 6 months, stress score4, urge score 9, urge incontinence, PHQ-9 score 13, transformed scores of WHOQoL-BREF: Physical domain=28.57, psychological health=33.33, social relationships=0, environment domain=15.63, overall QoL rating=50, health satisfaction=25, total score=50.0.

Case 4

The 37 years, 3rd std, married, homemaker, belonging to low socio-economic status, Hindu nuclear family of rural background, symptomatic for 6 years, BMI-24.30, nulliparous, UTI off and on for 4 years, pelvic infection, stress score 6, urge score 11, mixed type UI, PHQ-9 score-8, transformed scores of WHOQoL-BREF: Physical domain= 35.71, psychological health=62.50, social relationships=25, environment domain=28.13, overall QoL rating=75, health satisfaction=75 and the total score=52.

Case 5

The 50 years, 12th pass, married, homemaker, belonging to middle socio-economic status, Hindu nuclear family, rural background, symptomatic for 2 months, BMI 24.5 kg/m^2, age at first child birth 22 years, P-3, maximum birth weight 3 kg, stress score 12, urge score 10, mixed UI, PHQ-9 score 2, transformed scores of WHOQoL-BREF: physical domain=53.57, psychological health=50, social relationships=31.25, environment domain=75, overall QoL rating=75, health satisfaction=75 and the total score=50.

Case 6

The 48 years, matriculate, married, homemaker, middle socio-economic status, Hindu extended family of rural background, symptomatic for 5 years, BMI-25.40 kg/m^2, age at first childbirth 22, P-3, menopausal, stress score 0, urge score 8, urge UI, PHQ-9 score 0, transformed scores of WHOQoL-BREF: physical domain=82.14, psychological health=83.33, social relationships=78.13, environment domain=87.5, overall QoL rating=75, health satisfaction=100, total score=50.

Case 7

The 65 years, illiterate, widow, homemaker, belongs to lower middle Socio-economic status, Hindu extended family and rural background, symptomatic for an year, BMI-28.9 Kg/m^2, nulliparous, H/o pelvic surgery, chronic constipation and UTI, stress score 13, urge score 8, mixed UI, PHQ-9 score 8, transformed scores of WHOQoL-BREF: Physical domain=42.86, psychological health=54.17, social relationships=75, environment domain=62.50, overall QoL rating= 50, health satisfaction=25, total score=50.

Case 8

The 62 years, illiterate, married, homemaker, belongs to lower middle socio-economic status, Hindu extended family, rural background, symptomatic for 2 months, BMI-24.5 kg/m^2, age at first child birth 16 years, para-3, menopausal, H/o Chronic constipation, pelvic surgery and UTI, stress score 0, urge score 8, urge UI, PHQ-9 score 10, transformed scores of WHOQoL-BREF: physical domain=42.86, psychological health=41.67, social relationships=25, environment domain=43.75, overall QoL rating=50, health satisfaction=25, total score=50.

Case 9

The 57 years, 2nd pass, married, homemaker, belongs to lower middle socio-economic status, Hindu extended family and rural background, symptomatic for 2 months, BMI-19.1 kg/m^2, age at first child birth 20 years, para-5, menopausal, H/o chronic constipation, stress score 4, urge score 9, mixed UI, PHQ-9 score 12, transformed scores of WHOQoL-BREF: physical domain=35.71, psychological health=58.33, social relationships=75, environment domain=50, overall QoL rating=50, health satisfaction=25, total score=50.

Case 10

The 37 years, 12th pass, married, homemaker, upper middle socio-economic status belongs to Hindu Nuclear Family, Rural Background, symptomatic for 1 year, BMI-22.50, nulliparous, H/o pelvic surgery, stress score 6, urge score 11, Mixed UI, PHQ-9 score-5; transformed scores of WHOQoL-BREF: physical domain=71.43, psychological health= 66.67, social relationships=58.33, environment domain=62.5 , overall QoL rating=75, health satisfaction=75, total score=52.

Mean age of women presenting with UI was 52.7±10.2 years; mean BMI 22.5±4, PHQ-9 score was 8.1±4.9. Transformed scores of physical health on WHOQoL-BREF was 48.6±16.7, psychological health was 50.4±18.4, social relations was 40.4±32.0, environmental domain was 44.1±20.5, overall QoL rating was 57.5±17, health satisfaction was 50±28.9, total score 50.6 ±0.96. one patient had stress UI, 3 had urge UI 4 and 6 had mixed UI.

A socio-demographic profile, obstetrics and other risk factors, presence of depression and QoL of these women is described as cases 1 to 10 and results of applied scales described in Table 1.

Table 1: Risk factors, type of UI, depression and WHOQoL-BREF domain wise scores in women with UI.

Risk factors for UI	Type of UI/ duration	Depression	Physical domain	Psychological domain	Social relations	Environment domain	Overall QoL rating	Health satisfaction	Total Score
Illiterate, LSES, parity >2 menopausal	Mixed (3 years)	Mild	Poor	Poor	Poor	Poor	Poor	Poor	Poor
LSES, RBG, menopausal, UTI	Urge (4 months)	Moderately severe	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Good
Illiterate, LSES, RBG, H/o UTI, Para-8, highest birth weight of child 4 kg, menopausal	Urge (2 months)	Moderate	Poor	Poor	Very poor	Very poor	Poor	Very poor	Poor
LSES, low education, RBG, H/o UTI, pelvic infection	Mixed (6 years)	Mild	Poor	Good	Very poor	Poor	Good	Good	Good
Parity more than 2, max. child birth weight 3 kg	Mixed (2 months)	Nil	Good	Poor	Poor	Good	Good	Good	Poor
RBG, BMI >25, para-3, menopausal	Urge 6 years)	Nil	Very good	Very good	Very good	Very good	Good	Very good	Poor
Illiterate, LSES, RBG, BMI >25, menopausal, pelvic surgery, chronic constipation and UTI	Mixed (1 year)	Mild	Poor	Good	Good	Good	Poor	Very poor	Poor
Illiterate, LSES, RBG, age at 1st child birth <18 years, Para-3	Urge (2 months)	Moderate	Poor	poor	Very poor	poor	poor	Very poor	poor
Low education, LSES, RBG, para-5, menopausal, chronic constipation	Mixed (2 months)	Moderate	Poor	good	good	poor	poor	Very good	poor
RBG, H/o pelvic surgery	Mixed (1 year)	Mild	Good	Good	Good	Good	Good	Good	Good

*LSES-low socio-economic status, RBG-rural background, BMI-body mass index, H/o history of, UTI-urinary tract infection.

DISCUSSION

UI predominantly affects middle-aged and postmenopausal women due to estrogen deficiency and pelvic floor muscle weakness.[12,13] Mean age of described women with UI was 52.7±10.2 years, consistent with the literature. We used QUID to diagnose UI.[14] It is a validated tool consisting of six questions. It can be used for diagnosing stress, urge and mixed incontinence in female. Each item scores 0 (None of the time), 1 (Rarely), 2 (Once in a while), 3 (Often), 4 (Most of the time) or 5 (All of the time). Responses to items 1, 2 and 3 are summed for the Stress score, and responses to items 4, 5, and 6 are summed for the Urge score.

Incontinence may be attributed to multiple childbirths, advancing age, and postmenopausal status, which affect both urethral support and detrusor stability. Parity has been consistently identified as an important risk factor for UI due to pelvic floor trauma during vaginal deliveries.[15] Six of our women were menopausal and 6 had parity more than 2. Urinary tract infection (UTI) is a factor known to exacerbate urgency and frequency symptoms.[16] In addition to UTI which was reported by 50 % of the women, other risk factors were pelvic infection, pelvic surgery and chronic constipation reported by a few. Obesity is a well-known risk factor for stress UI due to increased intra-abdominal pressure, however none of our cases had BMI more than 30 kg/m^2.[17] However, two were overweight. This may be explained because of most of them were from low-socio-economic status.

PHQ-9 Hindi was used to diagnose depression.[18] It has excellent agreement with the diagnosis of major depression based on a psychiatric structured interview and has been especially validated for use in Obstetrics and Gynaecology outpatient clinics. The PHQ-9 scores of 0-4, 5-9, 10-14, 15-19, and 20-27 represent none or minimal, mild, moderate, moderately severe, and severe depression, respectively. Research has shown higher depression rates among incontinent women.[13,19,20] Mixed and Urge incontinence, as compared to stress incontinence, have been associated more with depression.[21,22] In our cases 3 of the Urge UI and 5 of the mixed UI had atleast mild depression as per PHQ-9.

UI significantly affects women's QoL as shown in studies of Garg et al and Salkapuram et al demonstrating a negative correlation between UI and QoL.[23,24] WHOQOL-BREF-Hindi was used to assess QoL.[25] The questionnaire contains two items from the overall QOL and GH and 24 items of patient satisfaction that are divided into four domains: Physical health with 7 items (Domain 1), psychological health with 6 items (Domain 2), social relationships with 3 items (Domain 3) and environmental health with 8 items (Domain 4). Each item is rated on a 5-point Likert scale. Raw domain scores are transformed to a 0-100 score according to WHO guidelines. Transformed score 0-25: very poor, 26-50: poor, 51-75: Good, 76-100 considered very good for particular domain. Most of the women had at least poor QoL in atleast some or majority of the domains in these women with UI. Similarly, in a study by Astrom et al UI had the greatest impact on the QoL domains of physical limitations, role limitations and emotions.[26] They have found that women with UUI/MUI, leakage had a significantly greater impact on the domains of role limitation, social limitations, emotions, and sleep, compared to women with SUI.

The psychological impact of UI often remains unaddressed due to sociocultural barriers that prevent women from seeking timely medical care. The interrelationship between UI, depression, and poor QoL is complex and bidirectional. Women consider UI as: normal, will get cured naturally, did not take it seriously, shyness, no time, financial problem, considered incurable, tolerable and fear of hospital were the reasons reported for non-consultation in a community-based study from North India.[27] Several condition specific external barriers as well as non-condition specific barriers like cost and transportation related issues and lack of time also seem to have a role to play in treatment seeking of an individual.[28] In a recent study cost of treatment was most common reason, followed by thinking condition was not treatable and fear. Women who delayed care were more likely to report several comorbidities, had significantly worse UI severity, and had worse bladder-specific QoL compared with those who did not delay seeking care.[29] Few of these barriers might have been faced by our women because of low-education, low-socio-economic status and hailing from rural background.

UI symptoms can lead to social isolation and emotional distress, while depressive symptoms may worsen the perception and severity of incontinence. Therefore, screening for depression in women with UI is essential for comprehensive management. A few studies have emphasized that treating depressive symptoms can improve patient adherence to behavioral and pharmacologic interventions for UI.[28]

CONCLUSION

Considering the burden of depression and impaired QoL among women with UI, particularly those with multiple risk factors such as high parity and postmenopausal status, routine screening for psychological distress and holistic management strategies addressing both physical and emotional aspects of UI are recommended. Also, imparting awareness on UI, its risk factors, pelvic floor exercises and other available treatment options should be incorporated in obstetrics and gynaecology care starting from antenatal visits. The findings from these studies have a very limited generalisability, it being a observational descriptive case-series. Future multicentric studies with longitudinal follow-up could better elucidate the temporal relationship between UI and depression. Qualitative studies focussing on various socio-cultural barriers are also recommended as future directions.

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