

## PREVALENCE OF LOW BACK PAIN AND SOME POSTURAL DISORDERS AMONG A GROUP OF WOMEN WITH URINARY INCONTINENCE, TEHRAN-IRAN 2009

### Hypothesis / aims of study

Urinary Incontinence (UI) is defining as involuntary leakage of urine that can affect on health-related quality of life. In addition to some known risk factors and related disorders such as constipation, co-morbidity of Low Back Pain (LBP) and Chronic Pelvic Pain (CPP) and recently changing in lumbo-pelvic posture are reported by some clinicians in women with UI [1].

In our knowledge, there is no exact and reliable statistics on the prevalence of LBP and postural or other related disorders in UI patients in our society. Therefore, the present study aimed to describe the prevalence of LBP and some postural disorders among a group of Iranian women with UI.

### Study design, materials and methods

During the year 2009, this descriptive-analytic, hospital-based study carried on women who had referred to urogynecology clinic.

According to previous investigations and also our pilot study on 30 Iranian females, we designed a questionnaire with questions regarding demographic information and some postural disorders. The method of this cross-sectional study was based on interview, observation and physical examination. After subjects provide signed to consent to participate in the study, we collected information by use of this questionnaire, also lumbar lordosis (by use of flexible ruler) and pelvic inclination (by use of a pelvic inclinometer) were measured. The ethical committee of the Shaheed Beheshti Medical University approved the study. The spss/Win15 statistical software and Pearson test were used for comparing mean values and P value was considered significant at  $P < 0.05$ .

### Results

A total of 164 women aged 26 to 70 ( $45.5 \pm 8$ ) years, who had complain of UI were assessed. Among these women 34% had urge, 55% stress and 11% mixed type of UI. The age of marriage and first delivery were 9-40 ( $17.6 \pm 3.8$ ) and 12-43 ( $19.3 \pm 4$ ) years, also the number of pregnancy and delivery were 1-13 ( $4.5 \pm 2.2$ ) and 1-12 ( $3.9 \pm 2$ ) respectively.

The prevalence of some postural disorders in detail were obtained: forward head position 36.6%, shoulder asymmetry 41.2%, round shoulder 52%, round back 50%, scoliosis 9.2% and pelvic asymmetry 18.4%. Totally 48.1% of women suffered from CPP during last 6-12 months. 52% of them reported present pelvic pain unrelated to menstrual cycle and 62.6% had LBP.

The mean of lumbar lordosis and pelvic inclination were  $9-99.5 (52.6 \pm 16)$  and  $-4-22 (10.5 \pm 4.5)$  degrees respectively.

Our data showed a significant difference in prevalence of CPP between UI patients with and without LBP ( $P = 0.002$ ). Also, in women with stress UI the prevalence of CPP and pelvic asymmetry were higher than the others ( $P = 0.01$ ).

### Interpretation of results

Some previous studies demonstrated an interaction and synergic activation between abdominal muscles and pelvic floor muscles (PFM) on healthy subjects [2]. Also, the role of PFM in postural control especially in lumbopelvic region can be present as a possible cause [3].

### Concluding message

Regarding to high prevalence of LBP & other postural disorders in women with UI and because of an incomplete range of documents, there is needed to do more epidemiologic & etiologic studies in this matter. We emphasize on a multidisciplinary approach for assessment and treatment of these patients.

### References

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<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>The ethical committee of the Shaheed Beheshti Medical University</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>