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**Abstract :**

**Aims:**We aimed to investigate the frequency of Hypermobility syndrome (HS) in stress urinary incontinent (SUI) patients and compare it with the frequency in the age adjusted healthy controls whose mean parity was statistically no different from the patients group. Hypermobility syndrome emerges with a variety of symptoms and signs affecting several organ systems, predominantly the musculoskeletal system. The patients with HS are prone to varicosities, stria of pregnancy, pelvic organ prolapse and abdominal herniations. Beighton scoring (BS) is used for the clinical diagnosis of HS. Maximum score is 9 and the diagnosis is made with scores  $\geq 4$ . The fact that some of the women who had vaginal deliveries show pelvic floor dysfunction while the others do not suggests the existence of a risky group. It is logical to think that HS can lead to (SUI) by loosening the pelvic floor muscles and ligaments.

**Methods:** 105 patients who were diagnosed with stress urinary incontinence and 105 healthy individuals were included into the study. The patients with mixed urinary incontinence or pure detrusor instability were not included into the study. Neither do the postmenopausal patients because of the known negative effect of menopause on the collagen metabolism (10,11).

It is known that the first vaginal delivery is a significant etiologic factor (12) in SUI and subsequent deliveries have just additive effect on it (13). For this reason, nulliparous patients and the patients who had given birth to  $>3$  babies were not included into the study for the homogenisation of the mean parity in both groups. The diagnosis of BJHS were made with Beighton scoring (BS) in both groups (1,6,14,15). BS is calculated with the following criteria:

1.Extension of the wrist and metacarpal phalanges so the fingers are parallel to the dorsum of the forearm

2.Passive apposition of the thumb to the flexor aspect of the forearm

3.Hyperextension of the elbows  $\geq 10$  degrees

4.Hyperextension of the knees  $\geq 10$  degrees

5.Flexion of the trunk with the knees extended so the palms rest on the floor

If any four of the maneuvers are positive, this is considered generalized joint laxity.

**Results:** 36 patients (34.28%) from the SUI group and 28 patients

(26.66%) from the control group were diagnosed with BJHS ( $p < 0.05$ ). The mean BS values were  $6,44 \pm 35$  and  $5,21 \pm 29$  respectively. The difference between two groups was statistically significant ( $p < 0.05$ ).

**Conclusions:** We conclude that there seems an association between SUI and HS and the women with HS should be regarded in the risky group with respect to pelvic floor dysfunction during vaginal delivery. For this reason, these patients should perform the exercises which increase the pelvic floor muscle strength in addition to general conditional exercises.

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