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**Title:** THE CORRELATION BETWEEN URETHRAL HYPERMOBILITY AND INTRINSIC SPHINCTER DEFICIENCY OBSERVED BY VIDEOURODYNAMIC STUDY IN STRESS URINARY INCONTINENCE

**Aims of Study:**

From a functional point of view, there are two generic types of sphincteric incontinence: urethral hypermobility(UH) and intrinsic sphincteric deficiency(ISD). It was said that all patients with sphincteric incontinence might be considered to have some degree of ISD(1), because the normal urethra is intended to remain closed no matter what the degree of stress or rotational descent, but there are very few data on the confluent relationships of UH and ISD. The purpose of this study was to assess the characteristics of UH and valsalva leak point pressure(VLPP) according to the position(supine and erect), and analyze the association of UH and ISD.

**Materials and Methods:**

From February 1998 to March 1999, 52 patients complaining of stress urinary incontinence were assessed with medical history, uro-gynecological examination and videourodynamic study consisting of VLPP on supine and standing position. We observed the location and descent of bladder neck on fluoroscopic images and VLPP synchronously, calculated by the basic unit of longitudinal length of the symphysis pubis at that synchronous images, because of the enlarging properties of images, correlated with the leak point pressures.

Results:

1. The initial location and descent by valsalva maneuver of bladder neck on erect position were lower than those on supine position. 2. The lower the position of initial bladder neck is, the lower the VLPP is in supine( $r=0.425$ ,  $p=0.01$ ) and erect( $r=0.226$ ,  $p=0.03$ ) position. 3. The more severe the descent of bladder neck is, the lower the VLPP is on supine( $r=-0.182$ ,  $p=0.107$ ) and erect( $r=-0.438$ ,  $p=0.02$ ) position. Seven patients with normal values( $71.9 \pm 8.31$  cmH<sub>2</sub>O) of VLPP on supine position turned out to be ISD which was lower( $52.3 \pm 3.94$  cmH<sub>2</sub>O) than 60 cmH<sub>2</sub>O. 4. The more severe the descent of bladder neck is, the more the percent of ISD is on supine( $r=0.810$ ,  $p=0.095$ ) and erect( $r=0.925$ ,  $p=0.038$ ) position.

**Conclusion:**

We recognized some degree of ISD even in small degrees of UH, which may predispose to some risk of operative failure with standard incontinence operations such as retropubic urethropexy. In the future, more works are warranted to identify the most critical factors on the correlation of UH and ISD, which would help in selecting the most appropriate procedure in surgery for stress incontinence

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