

Does videourodynamic classification depend on patient positioning in patients with stress urinary incontinence?

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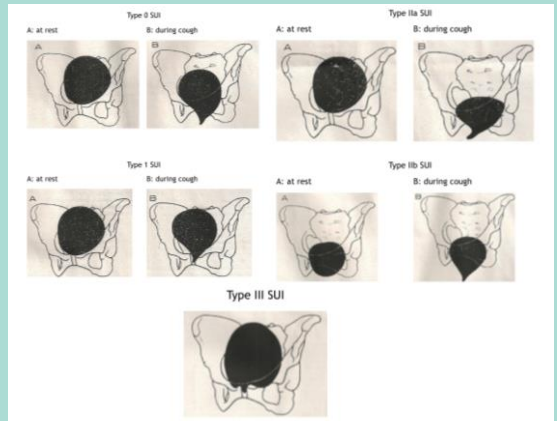
**Introduction**

- Treatment of stress urinary incontinence (SUI) is based on
  - degree of hypermobility and
  - intrinsic sphincter deficiency
 which is commonly assessed by videourodynamic study.
- The Blaivas-Olsson classification is often used to describe this. The position this grading is performed in has never been described
- We assessed the difference in Blaivas-Olsson grading in lying and standing positions

**Materials and Methods**

- 121 consecutive women with SUI underwent videourodynamic study prior to operative intervention.
- SUI was assessed in both supine and standing positions and the extent of descent was classified according to Blaivas-Olsson criteria.
- Differences between the positions was assessed using Fisher's exact test with  $p < 0.05$  being significant.

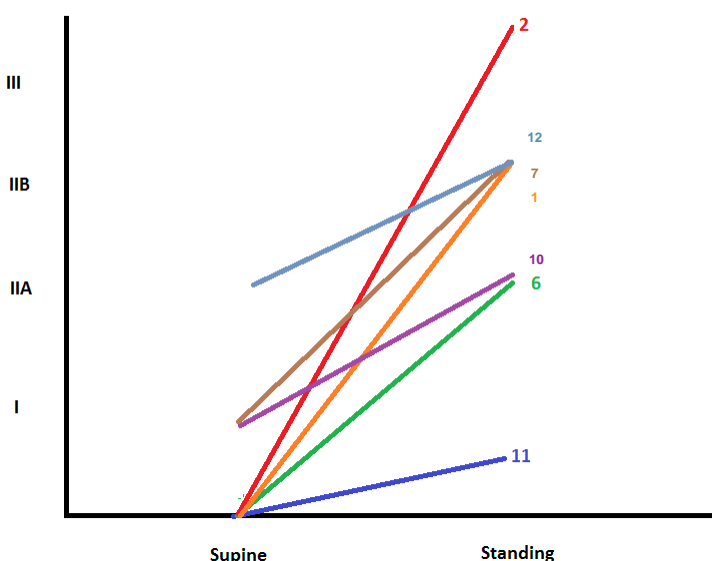
**Grading system (Blaivas and Olsson 1988)**



**Results**

- 72 of 121 classifications remained the same in both lying and standing positions. 49 gradings were upgraded with position (40%), none were downgraded (Table 1)
- Of the 49 who were upgraded, 20 (16.5%) had non-demonstrable SUI converted to demonstrable (Figure 1)
- The difference in the distribution of SUI grading between supine and standing positions was statistically significant ( $p < 0.01$ )

Blaivas grading with patient supine	0	0	0	0	I	I	IIa
Blaivas grading with patient standing	I	IIa	IIb	III	IIa	IIb	IIb
No of patients	11	6	1	2	10	7	12



**Conclusion**

- 16.5% of patients only had SUI demonstrable in the standing position.
- 40% Blaivas-Olsson classifications were upgraded with patients in the standing position.
- We suggest that videourodynamics are performed using standardised methodology in both lying and standing positions to best replicate symptoms, and minimise the chance of underestimating both incontinence and the degree of descent.

**Figure 1: Analysis of 49 patients who's grading changed**

References : Blaivas, J. G., and C. A. Olsson. "Stress incontinence: classification and surgical approach." *The Journal of urology* 139.4 (1988): 727-731.