



Category No. 1, 3, 4, 6, 8

Volume / Date

Ref. No. 491

Abstract Reproduction Form B

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Title (type in CAPITAL LETTERS)	Pelvic floor functionality: Correlation between contraction of the pelvic floor muscles and introitus-EMG

**As many stressincontinent women are not able to contract their pelvic floor muscles, Perineal biofeedback-trainer in therapy of stress incontinence showing a semi-quantitative increasing of the summation potential. We proved that there was a significant difference in the summation-potential (Introitus-EMG) between stress incontinent and healthy women. Yet no direct correlation to the contractility of the pelvic floor muscles was shown.**

**With the perineal sonography not only the bladder neck prolapse can be seen in valsalva manoeuvres but also the elevation of the bladder neck by voluntary contraction.**

**Aims of study:** We correlated the elevation of the bladder neck in voluntary contractions of the pelvic floor muscles with the summation potential measured by introitus-EMG.

**Methods:** In 89 women who underwent full urodynamic investigation due to incontinence a perineal sonography was performed. The summation potential was measured by voluntary contractions and valsalva manoeuvres. The vertical and horizontal distances between the bladder neck and the symphysis pubis were determined. So the distance between the bladder neck's position in rest and during voluntary contraction could be calculated.

**Results:** While the valsalva Manöver showed no clear correlation in all distances the summation potential of the introitus-EMG showed high significant correlations to the vertical, horizontal and direct distance of the bladder neck distopia (p:0.01 - 0.001). Above 12µV no further elevation of the bladder neck could be seen correlating with our previous studies that the normal range of the summation potential starts at 11.2µV.

**Conclusion:** The introitus-EMG shows a significant correlation to the ability of voluntary pelvic floor contraction. It is an easy method to diagnose incompetence of pelvic floor muscles which will help to find out women with a high risk to develop stress incontinence.