

CAN PARAVAGİNAL AND PARAURETHRAL THICKNESS BE A PARAMETER TO EVALUATE STRESS INCONTINANCE

Hypothesis / aims of study

In the pathophysiology of stress incontinence the role of anatomic factors is not exactly known. We are aware that decrease in urethral closure pressure originates from the functional tone reduction of muscle and connective tissue around the urethra. A parameter for anatomical usage of the structures in the decrease of the functional tone has not yet been determined for the day. We have examined the relation between functional urethral length, paraurethral and paravaginal thickness, pressure and intensity of incontinence, and functional-anatomic structures with Q-Tip test. In addition, we looked into the effect of these parameters to the success for patients undergoing mid-urethral sling procedure.

Study design, materials and methods

In patients stress incontinence diagnosed and undergoing mid-urethral sling procedure, anatomic functional urethra length, paraurethral and paravaginal thickness was measured by transvaginal ultrasonography. Furthermore, the relation between incontinence pressure – volume and stress has been analyzed by Q-tip test and urodynamic tests.

Results

Patients underwent transobturuarar teyp (TOT) and its relation to success has been examined. 103 patients TOT applied due to stress incontinence were included in the study. 39 patients were discharged because of not accepting urodynamic tests and failing to comply follow up criteria. 64 patients, mean bladder capacity was measured as 304.2 mL, mean stress incontinence pressure and volume as 47.4 cm H₂O and 256.8 mL. Average Q-Tip was 24. Patients' functional urethral length was found as 32.3 mm and paraurethral thickness as 2.9 mm and paravaginal thickness as 7.41 mm. There is an inverse correlation between urethral length and Q-Tip. Additionally surgical success was reduced as the length of urethra decreases, and was statistically significant in cases less than 2.5 mm. No relation was found between paraurethral and paravaginal thickness and incontinence degree.

Interpretation of results

Paraurethral and paravaginal thickness is insufficient to determine anatomic and functional relation of stress incontinence. However, the shorter the length of functional urethra severity of stress incontinence increases and surgery success rates decrease. For further research in a large group of patients with age and other factors more detailed radiographic imaging is necessary.

Concluding message

The shorter the length of functional urethra severity of stress incontinence increases and surgery success rates decrease.

Disclosures

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