

673

Alloussi S¹, Lang C¹, Eichel R¹, Alloussi S¹

1. University of Saarland

STATISTICAL DATA FOR HEALTHY PROBANDS FOR THE STANDARDISED COMBINED URODYNAMICAL EXAMINATION

Hypothesis / aims of study

So far there are no relevant physiological data for healthy people, which are valid for the combined urodynamical examination.

Because of this fact, the goal of this work was to establish guidelines for the standardised combined urodynamical examination with missing of any morphological pathology.

Study design, materials and methods

Group of candidates:

A combined urodynamical examination was performed with 345 probands (93 male, 252 female) with no symptoms for a bladder dysfunction.

These results got used to quantify the different urodynamical parameters.

Methods:

The whole candidate collective got examined by standardised combined urodynamics.

This includes a combination of cystometry and uroflowmetry. (combined manometry – flowmetry).

The filling of the bladder and the measurement of the intracavitary pressure (pb) was made by a transurethral inserted double-luminal catheter (Charr.8).

The bladder got filled with physiological saline solution, which was warmed up to 37 ° C.

The filling-speed was between 30 – 40 ml/min.

The measurement of the intraabdominal pressure (pr) was performed by inserting of a liquid-filled balloon catheter.

At the same time, the bladder filling volume (fv), the micturition volume (mv), the uroflow (f) and the electromyogram of the pelvic floor (emg) got continuously registered.

The pressure of the detrusor (pd), which is defined as the differential pressure of the intravesical and the intraabdominal pressure, was calculated by a subtraction amplifier and was continuously registered as well.

All the data of the urodynamical examinations got evaluated by the statistic software program SPSS, manufactured by SPSS inc.

Results

For women:

mean age 32,3 years (eldest 78 y, youngest 17)

Bladder filling volume: 468 ml

Detrusor opening pressure: 27,4 cm H₂O

Detrusor pressure at max. flow: 32,0 cm H₂O

Max. uroflow: 28,1 ml/s

Flowtime: 39,0 s

Openingtime: 7,0 s

Compliance: 52,0 ml/cm H₂O

For men:

mean age 39,0 years (eldest 81 y, youngest 18)

Bladder filling volume: 515 ml

Detrusor opening pressure: 32,9 cm H₂O

Detrusor pressure at max. flow: 38,3 cm H₂O

Max. uroflow: 24,1 ml/s

Flowtime: 42,5 s
Openingtime: 6,9 s
Compliance: 65,2 ml/cm H₂O

Interpretation of results

Because of the standardisation of the method of the combined urodynamical examination and the high number of the candidate group, these results could be representative for healthy people and could be used as a signpost for diagnosing of pathological changes in the lower urinary tract.

Concluding message

Because of these data it is possible to establish an index for urodynamical results, which can be used in connection of diagnosing functional disturbance of the bladder for objective valuation.