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CLASSIFICATION OF DETRUSOR ACONTRACTILITY BY S3 TRANSRECTAL ELECTROSTIMULATION

Hypothesis / aims of study

An acontractile detrusor is often the consequence of a lower motoneuron lesion. However there are a growing number of patients without neurological deficits, suffering from a bladder dysfunction due to an acontractile detrusor. This chronic urinary retention can also be secondary to suprapontine lesions. We initiated an investigation on the value of diagnostic S3 transrectal electrostimulation during urodynamic testing.

Study design, materials and methods

Nine patients (seven women, two men) with acontractile detrusor without neurological deficits were investigated (Hinman-syndrome). After videourodynamics and negative icewater testing we performed a short-time S3 transrectal electrostimulation and recorded the intravesical pressure during stimulation.

Results

In three out of nine patients (33%) short-time S3 transrectal electrostimulation provoked a significant detrusor contraction. In six patients this test remains without success. Eight out of nine patients complaint of pain during short-time S3 transrectal electrostimulation.

Interpretation of results

Short-time S3 transrectal electrostimulation allows a further classification of detrusor acontractility in case of negative icewater testing. A stimulation followed by detrusor pressure rise confirms an intact sacral reflex arc and exclude a peripheral nerve lesion or severe damage of the detrusor muscle. Patients with positive test results are good candidates for bladder rehabilitation, i.e., by sacral nerve electrostimulation. However, because of the painful procedure, the patients should be carefully selected and informed about the planned diagnostic procedure.

Concluding message

S3-transrectal electrostimulation allows a further classification of detrusor acontractility.