

REDEFINING REFRACTORY INCONTINENCE: DOES ICE WATER TEST (IWT) AT ONE MONTH AFTER TREATMENT CORRELATE WITH ADEQUACY OF SUPPRESSION OF NEUROGENIC DETRUSOR OVERACTIVITY (NDO) IN THE PATIENTS WITH NEUROGENIC BLADDER AFTER SPINAL CORD INJURY.

Hypothesis / aims of study

Refractory incontinence is a clinical definition and has no objectivity particularly in the setup of neurogenic bladder where storage pressure control and preservation of upper tracts is more important than mere control of leaks. Mere absence of leaks in the presence of DESD may still be associated with higher storage pressures putting the upper tracts at risk. When using oral anticholinergics as tolterodine or trospium for the control of NDO in the setting of neurogenic bladder, clinical titration with mere presence or absence of leaks may not be the best form of control to assess the efficacy of treatment. We studied the role of IWT at 1 month after treatment in determining the effectiveness of treatment.

Study design, materials and methods

50 patients of spinal cord injury with neurogenic bladder while on treatment with oral Tolterodine LA 8 mg were evaluated at baseline and one month with clinical assessment, IWT and a urodynamic study.

Results

60% of patients had a negative ice water test at 1 month of treatment. This group had greater reduction in the number of leaks per week from 30 to 8 per week and greater improvements in volume at first contraction (240 ml from 80ml), cystometric capacity (420ml from 260 ml) and greater reduction in the maximum pressure of NDO (30cm from 90 cm).

However 40 % of patients still had a positive IWT at one month of treatment. This group had lesser reduction in the number of leaks from 30 to 14 per week and less marked improvement in volume at first contraction (140 ml from 80ml), cystometric capacity (340ml from 260 ml) and lesser reduction in the maximum pressure of NDO (70cm. from 90 cm.).

Interpretation of results

Mere symptomatic control is insufficient criteria of management of patients with neurogenic bladder after spinal cord injury. IWT at 1 month of therapy correlates highly with adequate pressure control. A positive IWT may be used to define objective refractory incontinence.

Concluding message

A positive IWT should lead to a detailed UDS. Persistence of high press storage and unsafe NDO should be a reason to pursue alternate forms of treatment such as intravesical botulinum toxin.

References

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Disclosures

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