Maximizing bladder drainage by changing the posture of the patient – a lesson learnt from video urodynamic studies

Hypothesis / aims of study
To investigate if bladder drainage can be further improved by changing the posture of the patient before performing video urodynamic study.

Study design, materials and methods
We prospectively assessed all patients who had video urodynamic study from March 2012 to December 2013. The patients were catheterized at supine position to measure the residual urine volume. The patients were then instructed to stand up to assess if extra bladder volume could be drained. A sitting position or supine position were adopted with standing position of patients were not feasible. Demographic data were retrieved from clinical management system retrospectively.

Results
There were 354 patients included for analysis. The mean age of the patients was 53.8 years old. There were 59.0%, 12.7% and 21.7% patients who could walk unaided, walk with stick and wheelchair or bedbound respectively at the time of investigation. For adult patients, there were 7.5% and 10.1% patients had ≥100ml extra urine drainage by adopting a standing or sitting position respectively. There were 9/22 (40.9%) pediatric patients who had urine volume of ≥10% of the expected bladder capacity drained by posture adjustment. The age and the mobility of the patient did not correlate with the extra urine drained by posture changes (p>0.05).

Interpretation of results
By adopting a standing position, or sitting position if standing is not feasible, for bladder catheterization, bladder drainage can be more complete. This allows more accurate measurements in video urodynamic studies.

Concluding message
Accurate measurement of residual urine by adopting a standing or sitting position is preferable for accurate urodynamic measurement.

Disclosures
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