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DOES FOLLOW UP ULTRASOUND EXCLUDE THE NEED FOR REGULAR VIDEOCYSTOMETROGRAM TO DIAGNOSE REFLUX OF SPINAL CORD INJURED PATIENTS?

Hypothesis / aims of study

Videocystometrogram (VCMG) is recognized as the gold standard for assessment of lower urinary tract dysfunction in spinal cord injured (SCI) patients. We report on the significance of VCMG in the absence of documented upper renal tract changes in this patient group.

Study design, materials and methods

A retrospective analysis of VCMG studies was performed in our neuro-urology specialist department between1990-2000. A total of 222 consecutive SCI patients underwent VCMG in one specialist unit. Detrusor Sphincter Dyssynergia (DSD), Vesico-Ureteric Reflux (VUR), and Maximum Detrusor Pressure (MDP) were reported on VCMG with concurrent upper tract ultrasound.

Results Interpretation of results

The mean age was 47.3 years (range 14-88). The mean follow up was 10 years (range 8-14). Of the 222 patients, 158 had upper motor neuron SCI (C1- T12) and 48 had lower motor neuron SCI (L1 and below). Sixteen were excluded due to inadequate data. VCMG and ultrasound scan were done 3 months post injury. Subsequent, VCMG and ultrasound scan were performed routinelly for the follow up period. The mean number of VCMG test for each patient was 7 (range 3-16). Thirty five patients (17%) had vesico-ureteric reflux (grade 1-3). This occurred between 1-10 years (median 3 years) after the injury. A simultaneous ultrasound revealed four cases of hydronephrosis (12%). Thirty of these 35 cases (88%) had MDP above 20 cm/H2O. Twelve patients (30%) required surgical interventions (STING procedure) whereas, the rest 70% responded well to the medical treatment as confirmed by follow up VCMG.

Concluding message

Our data suggests that surveillance VCMG in spinal cord injured patients should be performed on a regular basis as upper urinary tract damage by VU reflux will not be picked up by renal tract images (Ultrasound). We suggest that VCMG be repeated at least every two years until bladder management has been stabilized.

References

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What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require eithics committee approval because	**It does not need**
Was the Declaration of Helsinki followed?	**No**
This study did not follow the Declaration of Helsinki in the sense that	**yes**
Was informed consent obtained from the patients?	**No**