PNE VERSUS STAGED TEST TRIALS FOR SACRAL NEUROMODULATION: SENSITIVITY, SPECIFICITY AND PREDICTIVE VALUES OF EACH TECHNIQUE

Hypothesis / aims of study
The aim of our study is to determine sensitivity, specificity, and predictive values of each test trial procedure and to establish a decision algorithm for the most appropriate screening test method.

Study design, materials and methods
A cross sectional study from August 2009 to February 2012, including patients with voiding dysfunction who underwent stimulation test trial prior to InterStim® implant. All patients presenting at that time period were included in the study.

Intervention: Patients underwent PNE as the first stimulation test. Patients who encountered technical difficulty during PNE or electrode migration underwent the staged procedure.

Outcome Measurements: True positive cases are patients with positive test and symptom control after InterStim® implantation. True negative are negative PNE and staged procedure result.

Results
A total of 213 patients, 172 females and 41 male underwent PNE. Patient’s diagnoses: refractory Overactive bladder (47%), non-obstructive urinary retention (29.6%) and frequency urgency syndrome, pelvic pain (21.6%). A total of 202 had PNE, 10 patients underwent staged procedure. Overall sensitivity of PNE was 87.3% compared to 90% staged procedure. PNE specificity was 98.5% versus 92.9% for staged procedure. Positive predictive value and negative predictive value for PNE was 99% and 82.1% compared to staged procedure was 90% and 92.9% respectively.

Interpretation of results
PNE test has high specificity, positive predictive value in comparison to the staged procedure. We recommend PNE, a simple office-based procedure as the first option in stimulation tests prior to SNM therapy and reserve staged procedure as a second-line option.

Concluding message
We compared sensitivity of both screening test for patient eligibility for interstim® implantation, we found that PNE is better first line screening test while staged procedure is reserved for special conditions.

References

Disclosures
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