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## Male Stress Incontinence Grading Scale (MSIGS) for Evaluation of Men with Post-Prostatectomy Incontinence: A Pilot Study

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### Abstract

**Introduction:** We developed an objective clinical grading scale to characterize post-prostatectomy incontinence (PPI) and evaluated its use as a tool to facilitate male anti-incontinence procedure selection.

**Protocol:** Between September 2014 and July 2015, we prospectively implemented a novel Male Stress Incontinence Grading Scale (MSIGS) to stratify PPI patients based on incontinence severity. Patients included were those referred for PPI who had no prior anti-incontinence surgery. During the initial outpatient consultation, each patient was prospectively assigned an incontinence grade score of 0 through 4 based on the consensus of 2 examiners performing a standing cough test (SCT). All patients refrained from voiding for at least 60 minutes prior to the SCT. Men with mild SUI (MSIGS grades 0–2) were offered AdVance sling surgery while those with heavier SUI (MSIGS grades 3–4) were offered artificial urinary sphincter (AUS). MSIGS grade was correlated to patient-reported pads-per-day (PPD), and patient-reported outcomes of anti-incontinence surgery were assessed.

**Outcome:** Of 62 consecutive new PPI patients, 20 were graded as mild based on SCT [five (8%) grade 0, 10 (16%) grade 1, five (8%) grade 2] while 42 were graded as moderate-severe [10 (16%) grade 3, 32 (52%) grade 4]. MSIGS grade demonstrated a strong correlation with preoperative PPD ( $r=0.74$ ). Among the 53 patients who underwent surgical intervention for PPI, 14 with mild SUI were treated with AdVance® male urethral sling (MSIGS grade 0, 1, or 2) while 39 more severe cases received AUS (MSIGS grade 3 or 4). Patient-reported improvement was high overall (median 95%) and similar for sling and AUS patients (95% and 96.5% respectively,  $p=0.596$ ). The median time from radical prostatectomy to anti-incontinence surgery was 5.4 years (range 1–20).

**Discussion:** The Male Stress Incontinence Grading Scale provides a rapid, simple, non-invasive, objective assessment of PPI severity which strongly correlates with patient-reported pads-per-day and appears to facilitate anti-incontinence surgical procedure selection.

### Supplementary Material

Refer to Web version on PubMed Central for supplementary material.