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Title (type in CAPITAL LETTERS, leave one blank line before the text) HOW TO TROUBLESHOOT ARTIFICIAL URINARY SPHINCTER (AMS 800) INTRAOPERATIVELY: RETROGRADE SPHINCTEROMETRY VIA CYSTOSCOPE
<u>Aims of Study.</u> Artificial urinary sphincter (AMS 800) is the gold standard for treatment of post-prostatectomy male incontinence. Complications associated with this device include device malfunction and iatrogenic injury. We describe a method of troubleshooting AMS 800 device at the time of surgical implantation.
<u>Methods.</u> Twenty five men (mean age 65 yrs) with Type III stress urinary incontinence underwent implantation of artificial urinary sphincter. All patients underwent preoperative multichannel urodynamic testing and cystoscopy. All had failed previous periurethral collagen injections. AMS 800 was implanted as per manufacturer's recommendations. After surgical implantation, flexible cystoscopy was used to assess the integrity of the urethra. At the time of urethroscopy, retrograde perfusion sphincterometry was performed via flexible cystoscope to assess the function of the implanted sphincter. The technique of performing the retrograde sphincterometry will be discussed.
<u>Results.</u> The mean age was 64.2 years (range 52-69). The mean follow-up was 23 months (range 3-32). The mean time for surgical implantation was 85 minutes (range 75-115). Excessive bleeding was encountered during the urethral dissection in 3/25 (12%) patients. The mean blood loss was 50 cc (range 25-70). The mean time for retrograde perfusion sphincterometry with urethroscopy was 15 minutes (range 10-20). Flexible urethroscopy diagnosed urethral injury in 2/25 (8%) men. Retrograde perfusion sphincterometry identified device malfunction in 5/25 (20%) patients; two cuff injuries, two leaking reservoirs, and one inadequately seated connector. Two units were immediately explanted and new devices were placed 6 weeks later; five devices were revised at the time of the operation. All sphincters are working properly at a mean follow-up of 23 months.
<u>Conclusions.</u> Retrograde perfusion sphincterometry is a useful tool that can diagnose malfunctioning artificial urinary sphincter and urethral injury so that corrective actions may be taken at the time of surgery.