Expedited Algorithm for IPP following Radical Prostatectomy (MP39-16)

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Introduction:
Erectile dysfunction (ED) following radical prostatectomy (RP) is a postoperative result which greatly affects a patient’s quality of life. The recovery of potency following radical prostatectomy varies wildly from 16% to 90%. There are several factors that contribute to decline in erectile function after RP which may be classified as vasculogenic, neurogenic, and psychological. Current guidelines recommend patients wait up to 24 months before IPP surgery. No proper algorithm or guideline has been established for the expedited management of ED. We are proposing an expedited algorithm for patients who fail PDE-5 inhibitors at the three-month follow-up after RP.

Materials and Methods
Patients who underwent inflatable penile prosthesis (IPP) surgery for the treatment of ED over a 36-month period with history of RP were identified from our IRB approved database. All patients completed an IIEF-5 questionnaire and had a penile doppler ultrasound (PDUS) performed preoperatively. A scoring for erectile function was performed with the International Index of Erectile Function (IIEF-5), and the Sexual Health Inventory for Men (SHIM) was defined. The relationships, according to Doppler diagnosis, IIEF-5 score, SHIM scale, and erection score were evaluated as well as surgical outcomes and patient comorbidities. Logistic regression and Wilcoxon rank sum tests were performed.

Results
605 patients were evaluated in this series, of whom 78 met inclusion criteria. PDUS determined that 60 (76.92%) suffered from veno-occlusive disease, while 12 (15.4%) had arterial insufficiency. 58 (74.4%) had a RALP vs 16 (25.6%) who received an open RP. The mean time between RP and IPP was 72 months, with the mean ages of RP and IPP being 59 and 66 years respectively. Increased time between RP and IPP were correlated with lower sham scores. Additionally, each month that passed caused a decrease of 1.5% in SHIM scores (p< 0.05), as well as a greater likely hood of developing vasculogenic ED (p= 0.036). Increased age at IPP was correlated with lower sham scores (p= 0.049), while RALP was found to be a predictor of higher patient satisfaction (p= 0.02).

Conclusion
Our expedited algorithm proposes that patients who fail PDE-5 inhibitors following RP be evaluated by PDUS three months post-operatively. Those patients found to have veno-occlusive etiology should have early surgical intervention limiting patient suffering and known penile atrophy regardless of rehabilitation protocol. If etiology is arterial insufficiency or unknown, then neuropraxia should be considered and patients can be informed to wait for definitive therapy. Early intervention can be fully endorsed for patients with veno-occlusive once a prospective study is designed to determine whether they worsen or improve.

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