PE28 Free testosterone and testosterone replacement: Impact on sexual function in men undergoing robot-assisted radical prostatectomy

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Introduction & Objectives: Post-radical prostatectomy (RP) sexual dysfunction remains a significant problem for many men. The present study seeks to assess whether low preoperative calculated free testosterone (cFT) negatively impacts post-RP potency recovery and whether postoperative testosterone replacement therapy (TRT) mitigates this relationship.

Materials & Methods: Between 2009 and 2018, 840 men underwent robot-assisted RP by a single surgeon. 212 patients with a preoperative IIEF-5 22-25, prospectively drawn preoperative cFT, and complete responses to self-administered sexual function questionnaires 3 months and >9 months post-RP were included. Potency was defined as two affirmative answers to erections sufficient for intercourse (ESI). In subgroup analysis, men with preoperative cFT<5.1 ng/dL were prescribed TRT and sexual function recovery was compared to a control group of men with similar cFT values.

Results: Of the 212 patients, 75, 75, and 62 had preoperative cFT<5.1 ng/dL (low), cFT 5.1-7.0 ng/dL (middle) and cFT>7 ng/dL (high), respectively. At 3, 9, and 15 months post-RP, potency recovery was 56.0% (42/75), 74.3% (55/74) and 81.3% (61/75) in the low group, 58.7% (44/75), 82.7% (62/75) and 88.0% (66/75) in the middle group, and 58.1% (36/62), 80.3% (49/61) and 90.3% (56/62) in the high group. In the subgroup of patients with low cFT and prescribed TRT, potency recovery at 3, 9, and 15 months post-RP was 30.8% (12/39), 62.5% (20/32) and 88.5% (23/26) in the TRT group versus 48.6% (34/70), 58.2% (39/67) and 75.5% (40/53) in the control group, respectively.

Conclusions: Overall, a cFT threshold <5.1 ng/dL was predictive of decreased return of potency at 3, 9 and 15 months post-RP. Furthermore, men with cFT<5.1 ng/dL may benefit from TRT via improved potency recovery.

Figure 1. Percentage recovery of sexual function in patients with cFT <5.1 vs Normal cFT

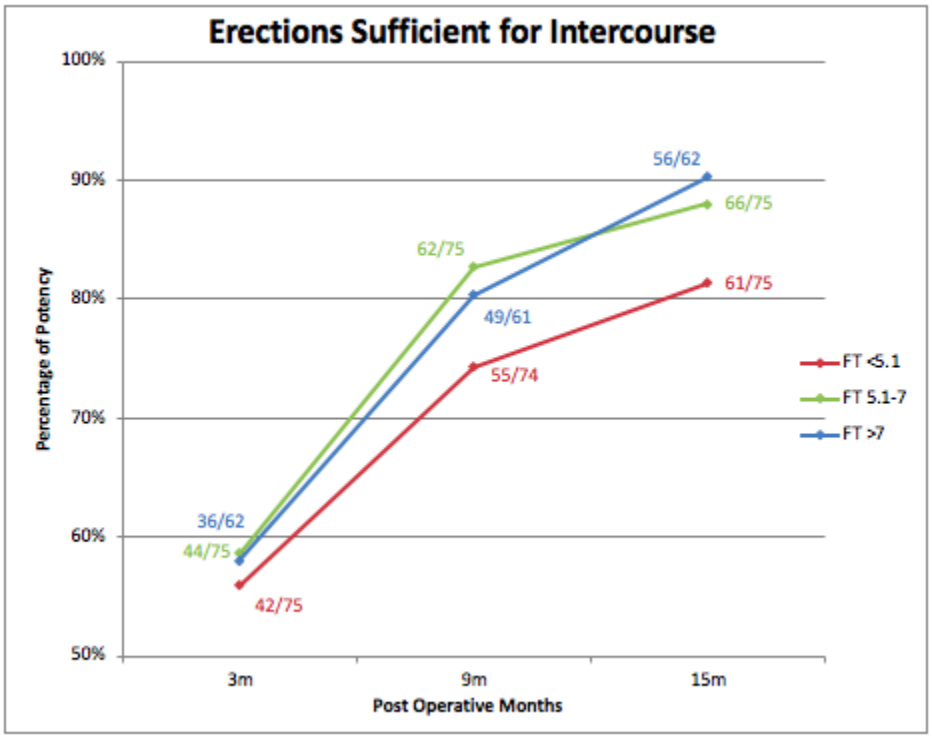

Figure 2. In men with cFT <5.1, percentage recovery of sexual function in patients on TRT vs controls.