Nerve- and Seminal Vesicle-Sparing Radical Cystectomy: A New Technique

Introduction and Objective: The results of post-radical cystectomy (RC) erectile function are notoriously disappointing, except when a prostate-sparing technique is used. However, valid concerns regarding oncologic safety still predominate. We present our experience and technique of RC and orthotopic diversion with preservation of the seminal vesicles and neurovascular bundles. No prostatic tissue is left behind, thus eliminating the risk of recurrence from bladder cancer (BC) as well as de novo prostate cancer.

Material and Methods: Between March 2008 and October 2010 14 patients with intact erectile function and non-muscle-invasive bladder cancer or stage ≤ pT3a away from the trigone underwent this type of surgery. The procedure starts as a standard nerve-sparing RPX. After transection of the urethra with Denonvillier's fascia still intact, vasa deferentia and seminal vesicles are transected at the base of the prostate, and the trigone is undermined to the space of Douglas. The cystectomy is completed in ascending or preferably descending fashion.

Results: The median age of the patients was 61 yrs. There were no major surgical complications using an established 5 grade and 11-domain modification of the Clavien system. Median follow-up was 22 mos. Thirteen out of 14 patients were node negative and 12 out of 14 had organ-confined disease. All were RO. As of October 2011 12/14 patients were NED. Daytime and nighttime continence rates were 100%, and 72%, respectively. Regarding potency 13/14 men are able to have erectile function satisfactory for intercourse with or without the use of PDE5 inhibitors. Conclusions: The main criticism about sexuality-sparing cystectomy has been the presence of consistent prostatic remnants. Performing intrafascial RPX together with supra-ampullar cystectomy seems to warrant good functional results while better preserving oncologic safety. RC remains the treatment of choice for patients with BC, while the application of the seminal-vesicle-sparing techniques may be carefully applied in selected individuals, with the future oncologic outcomes scrutinised.

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