Nocturnal tumescence: a parameter for postoperative erectile integrity after nerve sparing radical prostatectomy.

Bannowsky A, Schulze H, van der Horst C, Seif C, Braun PM, Jünemann KP.
Department of Urology, University Hospital Schleswig-Holstein, Campus Kiel, Germany. abannowsky@urology.uni-kiel.de

Abstract

PURPOSE: The exact process and time required for rehabilitation of erectile function after nerve sparing prostatectomy remain unclear to date. Different theories of the pathophysiology of postoperative erectile dysfunction are currently being discussed. In a prospective study we performed recordings of nocturnal penile tumescence and rigidity during the acute phase after nerve sparing radical prostatectomy, ie in the first night after removal of the catheter, to assess the organic penile integrity.

MATERIALS AND METHODS: In 27 patients with local prostate carcinoma who had been sexually active before the intervention, we performed unilateral or bilateral nerve sparing radical prostatectomy. Preoperative sexual function of all patients was evaluated by the International Index of Erectile Function-5 questionnaire. On the day of catheter removal (postoperative day 7 to 14) an NPTR recording was performed on the following night with an erectometer (RigiScan).

RESULTS: All patients had a preoperative IIEF score greater than 18. After removal of the catheter 25 of 27 patients (93%) showed 1 to 5 nocturnal rigidity increases by greater than 70% for at least 10 minutes. In a control group of 4 patients who underwent radical prostatectomy without nerve sparing, no nocturnal erections were recorded.

CONCLUSIONS: NPTR recording during the acute phase after nerve sparing radical prostatectomy showed residual erectile function as early as the first night after catheter removal. These results are significant for selecting adequate pharmacological treatment for optimal therapy and rehabilitation of satisfactory erections and sexual function. In cases of early nocturnal tumescence, application of a PDE5 inhibitor can support successive organ rehabilitation. However, if tumescence does not occur, penile injection therapy is recommended.

Comment in

Re: Nocturnal tumescence: a parameter for postoperative erectile integrity after nerve sparing radical prostatectomy. [Eur Urol. 2007]

PMID: 16697842 [PubMed - indexed for MEDLINE]

MeSH Terms

LinkOut - more resources