IMPACT OF BILATERAL NEUROVASCULAR BUNDLES ON RESPONSE TO VIAGRA FOLLOWING RADICAL PROSTATECTOMY
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INTRODUCTION AND OBJECTIVES: This study determined whether the response to sildenafil citrate was influenced by the presence of the neurovascular bundles, the time interval from surgery to the initiation of drug therapy, and the dose of the drug.

METHODS: 91 patients with erectile dysfunction following radical prostatectomy were stratified according to the type of nerve-sparing (NS) procedure: bilateral NS, unilateral NS and non-NS. These patients were interviewed using 1) the Cleveland Clinic Post Prostatectomy (CCPP) and 2) the International Index of Erectile Function (IIEF) questionnaires.

RESULTS: In the patients who had bilateral NS, 71.7% (38/53) responded; in those with unilateral NS, 50% (6/12) responded; and in those with non-NS, 15.4% (4/26) responded. The magnitude of improvement in response to questions 3 (frequency of penetration), 4 (frequency of maintenance of erection), and 7 (satisfaction with intercourse) of the IIEF questionnaire was significantly higher in the bilateral NS group compared to the other two groups (P < 0.05). The ability to achieve vaginal penetration (71.9%) correlated directly with the spousal satisfaction rate (66.0%). There were no differences in the response rate of the 48 positive responders according to three different time intervals: 0-6 months (44%), 6-12 (55%) and >12 months (53%) (P = 0.246). Of the positive responders, 14 (29.1%) required only a 50mg dose, and 34 (70.9%) required a 100mg dose (P < 0.05). The most common side effects of the drug were transient headaches (28.6%), flushing (21.9%), dizziness (6%), dyspepsia (6%), nasal congestion (5.4%), with an increase in the incidence of headaches seen at the higher dose (P = 0.04).

CONCLUSIONS: Successful treatment of erectile dysfunction with sildenafil after radical prostatectomy depends on the presence of the neurovascular bundles. The response is not related to the time interval between the surgery and initiation of drug therapy, but is related to the dose.