The role of nerve-sparing technique in urinary continence and correlation between urinary continence and potency recovery is still controversial.

We evaluated 173 patients from 2007 till 2010 years who underwent open RPE. In the first group (n = 92, average age 58.8±7.1, PSA median 7.3 ng/ml) - using uni- or bilateral nerve-sparing technique; in the second group (n = 81, average age 61.5±7.6, PSA median 11.6 ng/ml) this technique was not applied. Continence was defined as the absence of urinary leakage with the possible usage of one pad per day as a safety. Grade I stress incontinence - usage of 1-2 pads per day, grade II– 3, grade III– more than 3 pads per day. Potency recovery was defined as ability to achieve and maintain an erection suitable for sexual intercourse.

In a week after the removal of urethral catheter in the first group the continence was attained at 35.7% patients, in the second – at 9.4%. One year after surgery 97.3% and 89.4% patients were continent in 1 and 2 group. Grade I stress incontinence was found in 2.7% and 10.6% patients. No patient had grade II and III. One year after surgery potency rate was 64.8% in men with bilateral nerve-sparing RPE and 42.1% in men with unilateral one. On multiple logistic regression analysis potency recovery rate was the statistically significant factor influencing urinary continence after open RPE.

The incidence of stress incontinence after nerve-sparing RPE is lower. Continence is highly associated with a potency recovery rate.