Radical prostatectomy improves and prevents age dependent progression of lower urinary tract symptoms.

Prabhu V, Taksler GB, Sivarajan G, Laze J, Makarov DV, Lepor H.

Abstract

PURPOSE: The prevalence of lower urinary tract symptoms increases with age and impairs quality of life. Radical prostatectomy has been shown to relieve lower urinary tract symptoms at short-term followup but the long-term effect of radical prostatectomy on lower urinary tract symptoms is unclear.

MATERIALS AND METHODS: We performed a prospective cohort study of 1,788 men undergoing radical prostatectomy. The progression of scores from the self-administered AUASS (American Urological Association symptom score) preoperatively, and at 3, 6, 12, 24, 48, 60, 84, 96 and 120 months was analyzed using models controlling for preoperative AUASS, age, prostate specific antigen, pathological Gleason score and stage, nerve sparing, race and marital status. This model was also applied to patients stratified by baseline clinically significant (AUASS greater than 7) and insignificant (AUASS 7 or less) lower urinary tract symptoms.

RESULTS: Men exhibited an immediate worsening of lower urinary tract symptoms that improved between 3 months and 2 years after radical prostatectomy. Overall the difference between mean AUASS at baseline and at 10 years was not statistically or clinically significant. Men with baseline clinically significant lower urinary tract symptoms experienced immediate improvements in lower urinary tract symptoms that lasted until 10 years after radical prostatectomy (13.5 vs 8.81, p < 0.001). Men with baseline clinically insignificant lower urinary tract symptoms experienced a statistically significant but clinically insignificant increase in mean AUASS after 10 years (3.09 to 4.94, p < 0.001). The percentage of men with clinically significant lower urinary tract symptoms decreased from baseline to 10 years after radical prostatectomy (p = 0.02).

CONCLUSIONS: Radical prostatectomy is the only treatment for prostate cancer shown to improve and prevent the development of lower urinary tract symptoms at long-term followup. This previously unrecognized long-term benefit argues in favor of the prostate as the primary contributor to male lower urinary tract symptoms.

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