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RESEARCH HIGHLIGHT

Health-related quality of life outcomes in Scandinavian patients after radical prostatectomy or watchful waiting: a critical appraisal

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The Scandinavian Prostate Cancer Group-4 recently reported the long-term survival benefit in men who were randomized to radical prostatectomy versus men watchful waiting for localized prostate cancer.[1] The authors have now presented the companion article that updates the long-term quality of life evaluation in these men.[2] Given the excellent prognosis of patients with early stage prostate cancer, the impact of therapy on patient's quality of life is a significant factor in the optimal management of this disease.

The study was conducted using a disease-specific questionnaire of important quality of life factors that the authors developed through interviews with men with prostate cancer. The randomized study groups were also compared to matched contemporary controls. The questionnaire encompasses the patient's psychological symptoms, sense of wellbeing, physical symptoms (erectile dysfunction, weak urinary stream, urinary leakage, nocturia), sexual desire and sexuality. The questionnaire has been validated in other studies.[3]

The study evaluated the quality of life differences between treatment groups after a median follow-up of 12.2 years, which is one of the longest quality of life follow-up assessments to date in this setting. Radical prostatectomy and watchful waiting had similar incidences for erectile dysfunction (84% and 80%), which were significantly higher than the population control group (46%). However, all patients with prostate cancer rated sexuality as less important than the control group. Nonetheless, a greater number of radical prostatectomy patients with erectile dysfunction experience moderate-to-great distress from erectile dysfunction than watchful waiting patients with erectile dysfunction. It is interesting to note that distress from erectile dysfunction in these patients persisted a decade after the radical prostatectomy. Patients in the watchful waiting group had significantly higher rates of weak stream and nocturia than both the radical prostatectomy and control groups. However, patients who received radical prostatectomy had higher rates of urinary incontinence and dependence on protective aids. Anxiety in general was noted to be higher in all patients with prostate cancer.

The authors evaluated the change in symptoms in patients who received radical prostatectomy versus watchful waiting and found progression of erectile dysfunction and increased reliance in protective pads in both groups over time. There was also a significant decline in quality of life, increase in erectile dysfunction and increase in urinary symptoms in both the radical prostatectomy and watchful waiting groups. It is difficult to determine whether these long-term changes were due to effects of therapy, ageing or both, as the changes in quality of life and symptoms for the control group were not available for comparison.

The results in this article are similar to earlier published results of the same cohort of patients at mean follow-up of 4.1 years, which demonstrated radical prostatectomy to be associated with increased erectile dysfunction and urinary incontinence, and watchful waiting to be associated with increase obstructive urinary symptoms. The self-assessed quality of life was also similar between the two groups.[4]

Interestingly, patients who died of prostate cancer were excluded from analysis and mortality was not included as a factor in the health-related quality of life measure despite being an important concern to patients. Given that radical prostatectomy is found to improve survival but is associated with decreased quality of life, a better analysis of the tradeoff between quantity and quality of life could be determined using quality-adjusted life years.[5] Quality-adjusted life years would provide a more patient-centered measure of outcomes related to radical prostatectomy or watchful waiting by capturing the gains from reduced mortality with the morbidity of therapy. Furthermore, the number of patients who required additional procedures, such as transurethral resection of prostate for urinary obstruction or anti-incontinence procedures, was not determined in this study. These additional procedures needed are also considered important factors in quality of life assessment.

A few limitations deserve mention. Notable is the lack of baseline quality of life assessment. This is partially compensated by enrolling an age-matched and region-matched control group of men without prostate cancer. However, 23.8% of men in the population-based control group were lost to follow-up and did not return the questionnaire, which raises the potential for bias. The authors did not provide a power calculation for the number of patients needed to detect a difference in quality of life between the three groups. Caution should be exercised in interpreting these findings. The authors note that about 25% of men in the study were androgen-deprived, which likely confounds the results for erectile function, libido, mood and sense of wellbeing, for example. It appears that a higher proportion of patients receiving androgen deprivation therapy were in the watchful waiting group, which creates an imbalance. The effects of androgen deprivation

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on quality of life in this cohort of patients has been published previously after a mean follow-up of 4.1 years.[6]

This study reflects a historical group of patients who had prostate cancer diagnosed because of symptoms, who then received radical prostatectomy versus watchful waiting. Currently, the majority of prostate cancer is diagnosed as result of PSA screening. Moreover, watchful waiting in patients with symptomatic prostate cancer has been predominately replaced by active surveillance in patients with insignificant disease. Therefore, the generalizability of this study to current newly diagnosed prostate cancer patients who elect radical prostatectomy versus watchful waiting is limited.

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