Immediate versus delayed prostatectomy: Nationwide population-based study.

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Abstract

OBJECTIVE: The aim of this study was to compare the outcome of immediate versus delayed radical prostatectomy (RP) in men with low-grade prostate cancer.

MATERIALS AND METHODS: The study included a nationwide population-based cohort in the National Prostate Cancer Register of Sweden, of 7608 men with clinically localized, biopsy Gleason score 6 prostate cancer who underwent immediate or delayed RP in 1997-2007. Multivariable models compared RP pathology, use of salvage radiotherapy and prostate cancer mortality based on timing of RP (< 1, 1-2 or >2 years after diagnosis). Median follow-up was 8.1 years.

RESULTS: Men undergoing RP more than 2 years after diagnosis had a higher risk of Gleason upgrading [odds ratio 2.93, 95% confidence interval (CI) 2.34-3.68] and an increased risk of salvage radiotherapy [hazard ratio (HR) 1.90, 95% CI 1.41-2.55], but no significant increase in prostate cancer-specific mortality (HR 1.85, 95% CI 0.57-5.99). In competing risk analysis, 7 year prostate cancer-specific cumulative mortality was similar, at less than 1%, for immediate RP and active surveillance regardless of later intervention. Limitations of this study include the lack of data on follow-up biopsies and the limited follow-up time.

CONCLUSION: Men undergoing RP more than 2 years after diagnosis had more adverse pathological features and second line therapy, highlighting the trade-off in deferring immediate curative therapy. However, men with delayed RP constitute a minority with higher risk cancer among the much larger group of low-risk men initially surveilled, and the overall risk of prostate cancer mortality at 7 years was similarly low with immediate RP or active surveillance.

KEYWORDS: Active surveillance; outcomes; prognosis; prostate cancer; radical prostatectomy; surgical delay

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