Walsh TJ, Schembri M, Turek PJ, Chan JM, Carroll PR, Smith JF, Eisenberg ML, Van Den Eeden SK, Croughan MS, Increased risk of high-grade prostate cancer among infertile men in Cancer, Published Online: Mar 22 2010 9:32AM; DOI: 10.1002/cncr.25075

Abstract

BACKGROUND:
It has been reported that fatherhood status may be a risk factor for prostate cancer. In the current study, the authors examined the subsequent occurrence of prostate cancer in a cohort of men evaluated for infertility to determine whether male infertility is a risk factor for prostate cancer.

METHODS:
A total of 22,562 men who were evaluated for infertility from 1967 to 1998 were identified from 15 California infertility centers and linked to the California Cancer Registry. The incidence of prostate cancer was compared with the incidence in an age-matched and geography-matched sample of men from the general population. The risk of prostate cancer in men with and those without male factor infertility was modeled using a Cox proportional hazards regression model.

RESULTS:
A total of 168 cases of prostate cancer that developed after infertility were identified. Men evaluated for infertility but not necessarily with male factors were not found to have an increased risk of cancer compared with the general population (standardized incidence ratio [SIR], 0.9; 95% confidence interval [95% CI], 0.8-1.1). This risk was found to be highest for men with male factor infertility who developed high-grade prostate cancer (SIR, 2.0; 95% CI, 1.2-3.0). On multivariate analyses, men with male factor infertility were found to be 2.6 times more likely to be diagnosed with high-grade prostate cancer (hazard ratio, 2.6; 95% CI, 1.4-4.8).

CONCLUSIONS:
Men with male factor infertility were found to have an increased risk of subsequently developing high-grade prostate cancer. Male infertility may be an early and identifiable risk factor for the development of clinically significant prostate cancer.

(c) 2010 American Cancer Society.