

Factors associated with survival after bladder cancer in spinal cord injury

Objective: The purpose of this study was to evaluate factors influencing survival in individuals with spinal cord injury (SCI) and bladder cancer. We hypothesized that bladder cancer survivors would have undergone more intense genitourinary surveillance and would have had fewer risk factors for bladder cancer.

Design: Case-control study.

Participants/Methods: Eight participants with SCI who had survived at least 5 years (survivors) with bladder cancer were compared with 12 SCI controls who had died due to bladder cancer. Data was obtained retrospectively through medical record review and were analyzed using a two-tailed Mann-Whitney and Fisher's exact tests.

Results: The survivor and control groups were similar with regard to age at SCI, duration of SCI, age at bladder cancer diagnosis, and time utilizing an indwelling catheter. The proportion that developed squamous cell carcinoma was similar for the survivors and controls, at 37.5% and 44% respectively. Survivors were more likely to be nonsmokers ($P = 0.04$), and have a history of squamous metaplasia ($P = 0.05$) and papillary cystitis ($P = 0.03$). Examining risk factors together, controls were more likely to have multiple risk factors for bladder cancer. The mean number of cystoscopies for the survivor and control groups, respectively, was 8.6 (range = 1-22, SE = 3.1) vs. 18.9 (range = 4-48, SE = 6.6), and the mean number of bladder biopsies was 1.5 (range = 1-5, SE = 0.6) vs. 4.2 (range = 1-11, SE = 2.0), respectively.

Conclusion: Bladder cancer survivors were less likely to have multiple genitourinary risk factors. Fewer screening cystoscopies and biopsies were performed in survivors of bladder cancer than in those who died of bladder cancer.

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