

BLADDER CANCER

Smoking does not affect outcome of BCG therapy

Smoking has no effect on the outcome of bacillus Calmette-Guérin (BCG) therapy in patients with urothelial bladder cancer, according to a study published in the *British Journal of Urology International*.

Tobacco smoking is the biggest risk factor for development of urothelial bladder cancer—the risk in smokers is double that of nonsmokers, and is associated with the duration of smoking, the degree of inhalation and the number of cigarettes smoked per day. Although around 50–70% of urothelial bladder cancers recur, BCG therapy has been shown to decrease recurrence and delay progression.

A US research group retrospectively studied 623 people who were treated with intravesical BCG for Ta or T1 bladder cancer or carcinoma *in situ*. Patients were categorized as smokers versus nonsmokers, and then further classified as current versus past versus never smokers.

At 6 months after start of treatment, 469 of the 623 patients had a complete response to BCG therapy. The probability

of a complete response was not affected by a patient's current smoking status, and further stratification of past smokers according to the time of cessation



(whether they gave up smoking at diagnosis, 0.1–10 years before diagnosis, or more than 10 years before diagnosis) did not affect these results. Univariate analysis failed to show an association between smoking status and BCG response, bladder cancer recurrence or progression, or between smoking status and cancer-specific or all-cause mortality.

These results contradict the hypothesis that smoking affects the cell-mediated immune system, altering cytokine action and increasing the chance of BCG therapy failure. Although smoking certainly increases the risk of developing urothelial bladder cancer, it appears that it does not have a further effect on BCG treatment response once the tumor is established.

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Original article Sfakianos, J. *et al.* Impact of smoking on outcomes after intravesical bacillus Calmette-Guérin therapy for urothelial carcinoma not invading muscle of the bladder. *BJU Int.* doi:10.1111/j.1464-410X.2010.09874.x

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