

Marijuana use and testicular germ cell tumors - Abstract

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Since the early 1970s, the incidence of testicular germ cell tumors (TGCTs) in the United States has been increasing; however, potential environmental exposures accounting for this increase have not been identified. A previous study reported a significant association between frequent and long-term current marijuana users and TGCT risk. The purpose of this study was to evaluate the relation between marijuana use and TGCTs in a hospital-based case-control study.

TGCT patients diagnosed between January 1990 and October 1996 (n = 187) and male friend controls (n = 148) were enrolled in the study. All participants were between the ages of 18 and 50 at the time of diagnosis and resided in Texas, Louisiana, Arkansas, or Oklahoma. Associations of marijuana use and TGCTs were estimated using unconditional logistic regression, adjusting for age, race, prior cryptorchidism, cigarette smoking, and alcohol intake.

Overall, patients with TGCTs were more likely to be frequent marijuana users (daily or greater) compared with controls (odds ratio [OR], 2.2; 95% confidence interval [CI], 1.0-5.1). Histological-specific analyses revealed that patients with nonseminoma were significantly more likely than controls to be frequent users (OR, 3.1; 95% CI, 1.2-8.2) and long-term (≥10 years) users (OR, 2.4; 95% CI, 1.0-6.1).

The finding of an association between frequent marijuana use and TGCTs, particularly among men with nonseminoma, was consistent with the findings of a previous report. Additional studies of marijuana use and TGCTs are warranted, especially studies evaluating the role of endocannabinoid signaling and cannabinoid receptors in TGCTs.

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