

Letter to Editor**Evaluation of bladder cancer in opium addicted patients  
in the Kerman Province, Iran from 1999 to 2003****To the Editor**

I read with interest the article about evaluation of bladder cancer in opium addicts by Saghaei et al <sup>1</sup> and I would like to present my opinion on it. The authors described a case-control study, but I'm afraid it has some pitfalls in its results and interpretations. The authors have not defined permanent abuse of opium and its derivatives which is influenced by the onset age of abuse, amount of drug, frequency of abuse per day/week and methods of opium abuse.

This study was performed between 1999 and 2003 but, it seems that it used simple sampling without follow-up during such period; then, it is not a cohort study, in which both the exposed group (opium addicts) and the non-exposed group (hospitalized patients for causes other than bladder cancer) are followed up for occurrence of outcome (bladder cancer). Also, the study is affected by biases which have influenced the Odds ratio of bladder cancer in opium addicts. The authors selected the case and control groups among patients who were hospitalized in the urology ward for

bladder cancer or other reasons (selection bias). Selection bias could have been decreased if the authors had used random sampling or had selected samples from different hospital wards. The authors included hospitalized patients only, and did not study the frequency of opium addicts among urology outpatients. Then, the results were biased by length of hospital stay and referral bias. Moreover, Berkson's bias is present and the non-cancerous causes of hospitalization of controls in urology's wards may have a role in carcinogenesis of bladder cancer.

I think for the above reasons, the results could not be generalized to Kerman Province.

In conclusion, this study could have provided more reliable results if it had been designed as a historical cohort study in which, all patients with bladder cancer (outpatients or inpatients alike) as well as the control group were selected cross-sectionally, and then the history of opium addiction was evaluated in both groups.

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**References**

1. Saghaei A, Gharaei M, Ahmadinejad M, Meershekari T. **Evaluation of Bladder Cancer in Opium addicted patients in the Kerman Province, Iran from 1999 to 2003.** *JRMS* 2005; 10(6): 355-7.

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