



Cancer risk in Korean patients with gout

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A cohort study conducted by Oh et al. [1] published in the *Korean Journal of Internal Medicine* reported that gout was associated with a significantly higher risk of cancer in Korea (adjusted hazard ratio, 1.053; 95% confidence interval, 1.031 to 1.077; $p < 0.01$). Their findings are important for relevant issues. Some points are shared with the readers. First, gout attack is a self-limited disease, and even without treatment, gout attack can subside within 7 to 10 days [2]. If gout patients found in Oh et al' study only had one episode of gout attack during 2008–2011, it was not reasonable to establish a link between gout and cancer risk. If these patients had several episodes of gout attack during 2008–2011, such a link could be worth exploring. But due to the limitation of the study database used, the episode number of gout attack was not available in Oh et al' study [1]. Second, 85.49% of patients with gout took allopurinol in Oh et al' study [1]. It indicates that most of the patients in Oh et al' study were gout patients with hyperuricemia. Due to the limitation of the study database used, the uric acid level at the baseline and at the time of cancer being diagnosed was not available in Oh et al' study [1]. Whether the association of cancer is related to hyperuricemia or normal uric acid level cannot be examined. Third, when reporting cancer risk in academic research, incidence rate (IR) or standardized incidence rate (SIR) is commonly used. Based on

the purpose of Oh et al' study intending to compare the cancer risk between gout patients and the controls, the IR should be the first choice. Oh et al' study showed that the IR of overall cancers was 1,082.8 in gout group and 1,001.7 in the control group, but the denominator or the person-year was not shown in the table [1]. The readers cannot make sure whether the IR of overall cancers in gout group was 1,082.8 per 100,000 person-years. Fourth, the proportions of comorbidities were significantly higher in gout group than that of the control group in Oh et al' study [1]. Although these comorbidities were adjusted in Cox proportional hazard regression analysis, the higher hazard of cancer found in the gout group could be due to surveillance bias. That is, patients with gout and comorbidities need to frequently visit physicians. So they had more chances to be found with cancers. The sample size of Oh et al' study is large enough, so the authors can consider making a sub-analysis by matching comorbidities in gout and control groups. Then the readers can make sure whether or not the results are confounded by comorbidities. Finally, I agree with the authors' conclusion that regular and close monitoring is needed to early identify occult cancers in gout patients.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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