



Association between gout and osteoporosis risk in the United Kingdom

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Dear Editor,

In their population-based study using data from a longitudinal Taiwanese health insurance database, Kok and colleagues showed that patients with gout have a slightly higher risk of developing osteoporosis [1].

We conducted a similar study based on a longitudinal UK database (Disease Analyzer database) that contains information on about 6 million subjects [2].

This study included patients who had received an initial diagnosis of gout (ICD-10: M10) and were followed up in 256 general practitioner practices in the UK between January 1990 and December 2016 (index date). The inclusion criteria were as follows: (i) observation of at least 12 months prior to the index date, (ii) follow-up of at least 24 months after the index date, (iii) age between 18 and 80 years on the index date, and (iv) no osteoporosis diagnosis prior to or on the index date. After applying similar inclusion criteria, controls were matched (1:1) to osteoporosis patients based on age, gender, index year, and follow-up time in years. The main outcome of the study was the proportion of patients with a diagnosis of osteoporosis (ICD-10: M80, M81) within 20 years after the index date. The mean follow-up time was 8.9 years.

The study in question included 49,900 patients with gout and 49,900 matched controls without gout (mean age 57 years [SD = 14]; 78% male). Each cohort had a

follow-up of 444,257 person years, with 951 and 786 incident cases of osteoporosis respectively. After 20 years of follow-up, 4.4% of gout patients and 3.5% of controls were diagnosed with osteoporosis (log-rank $p < 0.001$). Gout was associated with a 1.2-fold increase in the risk of osteoporosis (HR 1.21, 95% CI 1.10–1.33, $p < 0.001$). However, there was a strong association between gout and osteoporosis risk in men (HR 1.51 (95% CI 1.27–1.78, $p < 0.001$) but not in women (HR 1.10, 95% CI 0.98–1.23, $p = 0.115$).

Compliance with ethical standards

Conflicts of interest None.

References

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A response to these comments can be found at <https://doi.org/10.1007/s00198-018-4478-9>.

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