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To cite this article: Mei-Chia Chou, Wei-Kai Lee, Renin Chang & I-Ming Jou (2022) Correspondence on “The association between gallstone disease (GSD) and Hip fracture: a nationwide population-based study”, *Postgraduate Medicine*, 134:8, 717-717, DOI: [10.1080/00325481.2022.2110818](https://doi.org/10.1080/00325481.2022.2110818)

To link to this article: <https://doi.org/10.1080/00325481.2022.2110818>



Published online: 30 Aug 2022.



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CLINICAL FEATURE
LETTER TO THE EDITOR



Correspondence on “The association between gallstone disease (GSD) and Hip fracture: a nationwide population-based study”

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ARTICLE HISTORY Received 5 April 2022; Accepted 3 May 2022

KEYWORDS Epidemiology; cohort; gallstone disease; hip fracture

To the editor

We read with great interest the study by Lin *et al* [1] investigating the potential effect of gallstone disease (GSD) on the long-term risk of subsequent hip fracture. Lin *et al* [1] provided valuable and innovative clinical information and noted that 550 (2.66%) hip fractures occurred in the study group (N = 20,639) and after adjustment, patients with GSD were at higher risk of subsequent hip fracture than the controls (aHR, 3.04; 95% CI, 2.79 – 3.32). However, we have a few concerns about the methodology and residual confounding factors.

First, we would like to clarify the age of the patient enrolled in the case. The narrative states that cases over 20 years of age were excluded, but in Table 1–3, it was shown that the age of acceptance was over 18 years.

Second, as for the factors associated with hip fracture, the authors had included the use of steroids and PPIs in the adjustment process. However, according to previous studies, tramadol, opioids and sedative-hypnotics drugs are very important medication in association with fall down and hip fracture [2,3]. If these medications can be considered in their analysis, it would increase the accuracy of their findings.

Third, the authors have included pertinent comorbidities that may affect the occurrence of hip fracture. However, dementia and Parkinson’s disease are also well-known risks for hip fracture, and were not included in the study [4,5]. Besides, the authors had made an argument that chronic inflammatory response is correlated with osteoporosis, and hip fracture, but they did not include other relevant comorbidities in association with chronic inflammation and osteopenia, such as rheumatoid arthritis, psoriasis, ankylosing spondylitis, systemic lupus erythematosus, multiple sclerosis, inflammatory bowel diseases, pemphigus vulgaris [6] in their analysis. If these confounding factors can be involved in the study, the conclusion of the positive correlation between GSD and hip fracture will be clearer.

We look forward to their response to clarify these issues in the study.

Transparency statements

Disclosure of any financial/other conflict of interest

The authors have no other relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript apart from those disclosed.



Peer reviewers on this manuscript have no relevant financial or other relationships to disclose.

Funding

No funding was received for the production of this manuscript.

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