Reviewer's report

Title: Mortality and Complications after Hip Fracture among Elderly Patients Undergoing Hemodialysis

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Reviewer: Akihiko Kato

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Dr. Lin and coworkers examined the impact of surgical hip fracture on mortality and medical complications for 5 years using the nationwide database in Taiwan. They showed that HD patients had a significantly higher risk for all-cause mortality and first medical complication when compared to matched non-dialysis subjects. This study is interesting, because they showed that long-term outcome after hip fracture operation was poor in the HD population. However, there are some concerns in this study.

1. In this study, the authors examined the association of postsurgical outcomes with HD therapy by comparison with age-matched controls. They analyzed its impact by corrected by the parameters such as age, gender, fracture type, operation type, and comorbidities. However, as discussed, there are many other cofounders that affect postsurgical mortality. For example, sarcopenia, frailty and decreased bone mineral density are well known as potent risk factors of mortality after hip fracture. Medication for osteoporosis is also likely to improve prognosis. Since it is well known that the prognosis after surgery is poor as shown in the DOPPS (Ref #25), the authors focus on the mechanisms why HD patients are prone to complicate of medical and surgical problems after hip surgery more deeply.

2. Did other sites of fracture such as wrist and vertebrae also relate to poor prognosis in HD patients?

3. Did you measure Scr and estimate GFR in subjects not on dialysis. If so, did eGFR affect the risk of poor outcomes?

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests: I declare that I have no competing interests.