Reviewer’s report

Title: Comparison of Performance-Based Measures among native Japanese, Japanese-Americans in Hawaii and Caucasian Women in the United States, ages 65 years and over: a cross-sectional study

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Reviewer: Dr Raja Rajatanavin

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Accept after revision, which I do not need to see

This manuscript demonstrated differences in neuromuscular risk factors for falls using performance-based measures among native Japanese, American Japanese and Caucasians women in the USA. Even though it was tempting to relate these findings to lower incidence of hip fracture in Japanese, this is by no means a proof of causal relationship because many confounders were not controlled. However, the authors did not over claim their finding by summarizing that the biological implications of these differences are uncertain.

Comments (1 and 2 : major comments 2 and 3 : minor comments)

1. The authors rightly pointed but that these findings should be interpreted with caution because the subjects in each group are not quite comparable. The native Japanese women were so different from the other groups because they were community dwelling people in a rural farming area. In addition, even though Japanese American and Caucasians were suburban/urban populations they might also be different in many risk factors of osteoporotic fractures for example dietary calcium intake or magnitude of physical activity. In addition there were no information on other known risks of fractures for example medications, dementia, previous fractures, or family history of fractures.

2. Geometry of the femur, hip axis length, another known factor that may result in lower rate of hip fractures in native Japanese and American, should also be mentioned (see Ref 1 and 2). Even though measurement was not done in this study.

3. The number of native Japanese subjects 80-84 years and over 85 years were so small that comparison to a much larger number in Caucasians, even though statistically significant, may not be meaningful. Perhaps the authors should consider deleting these age groups.

4. This study is more of a hypothesis generation than proving anything. Further study is needed and should be conducted to control or adjust other known confounders to determine if neuromuscular risk factors for falls are is an independent risk factors for hip fracture.

Reference:

**Competing interests:**

None declared.