Reviewer's report

Title: Rheumatoid arthritis and incident fracture in women: A case-control study

Version: 2 Date: 19 August 2013

Reviewer: Takefumi Furuya

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The authors investigated fracture incidence in women with rheumatoid arthritis (RA) for an entire geographical region of south-eastern Australia. From this study, women with RA sustained vertebral fracture at twice frequency. This work addresses important issues in the clinical settings of RA. I have some comments and concerns to be addressed by the authors:

Major points

1. Authors did not show the baseline demographic and clinical characteristics of the RA patients and controls in details. I think it is very important to show the baseline data of the subjects. They should make a new Table as Table 1 and describe them in the first paragraph of the Results.

2. In Table 1, authors showed the number of fractures in women with RA and controls by year although the patients with RA were older than the controls. Controls should be almost same age as cases because advanced age is a well-known significant risk factor for fractures. Authors should show the data by age groups or change the table.

3. Authors reported fracture rates were not significantly different after age-adjustment between the RA patients and controls. However, many studies reported that patients with RA have a significantly increased risk of fractures compared with controls. Authors should state the reasons why the fracture rates were not significantly different between the two groups in the discussion.

4. In Table 2, authors did not show the data of #2 value and P value of major osteoporotic, colles’s, hip foot, or toes fractures. They should show the values. They did not show the fracture site of others (n = 113). They should show them more exactly in the Table 2. I can’t understand the (%) means in Table 2.

5. In this study, observed numbers of hip fractures were smaller than the expected number in the RA population, although patients with RA are reported to have an increased risk of hip fracture compared to healthy individuals without RA. Authors should state the discrepancies between this and other studies in the discussion.

Level of interest: An article of limited interest
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.