Reviewer's report

Title: An increased risk of epithelial ovarian cancer in Taiwanese women with a new surgical diagnosis of endometriosis

Version: 1 Date: 14 September 2014

Reviewer: Sun Kuie K Tay

Reviewer's report:

Major revision:

1. I note that 29 of the 39 cases of cancer in the endometriosis arm and 22 of the 36 cancer in the control arm had the cancer diagnosed within the first year, some within 1 day of enrolment. This means that some (how many?) of these subjects were recruited while being treated with surgery. The endometriosis arm might have included women who underwent surgery for a clinical diagnosis of endometriosis but were found to have a cancer. Was the endometriosis, on top of cancer, in these cases confirmed on histology? The statement that the index cases were surgically proven endometriosis is misleading. This is an important issue to address as the number of cases of endometriosis was a quarter of cases in the control arm and every change by one case in the number of incidence (cancer) in the endometriosis arm would exaggerate the incidence ratio by four times!

2. I disagree with the author in the discussion that there was no bias in the selection of controls in the current study. The index cases were all women with symptoms that warranted surgery while the controls were not. Were many of these controls attending physicians for antenatal check-up or for contraceptive pill refills, both conditions known to decrease the incidence of EOC? These cases should be excluded.

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.

Declaration of competing interests: NIL