Reviewer’s report

Title: Treatment of uterine leiomyoma in adolescence: a systematic review

Version: 4  Date: 28 November 2014

Reviewer: Patricia Moorman

Reviewer’s report:

This paper describes a systematic review of the literature on uterine leiomyomas in adolescents. Not surprisingly, the condition is very rare in this age group, and the literature is limited to case reports describing individual women diagnosed with leiomyomas. It is an interesting paper and provides a good summary of the data on a condition that is rarely diagnosed in young women, but can be quite serious and therefore should be considered in the differential diagnosis of women presenting with a pelvic or abdominal mass.

Major Compulsory Revisions:

1. The title of the paper "Treatment of Uterine leiomyomas..." is not a good representation of the contents of the paper since it is not focused solely on treatment. A better alternative might be "Presentation and Treatment of Leiomyomas..."

2. Background, line 50. The phrasing "Many risk factors are recognized as contributors to the development of fibroids..." implies that there is a causal relationship, which has not been established. It would be better to state these factors are associated with fibroids, which does not necessarily imply causal relationships.

3. Discussion, lines 142-144. The description of this study could be made more clear. First, "women" should be inserted after 21,479. The next sentence should be changed to something like "The study included 2,180 adolescents aged 15 to 19 years, among whom the estimated prevalence of leiomyoma based on self-reported diagnoses was 0.4%".

4. The discussion should address the fact that the average size of the fibroids described in the case reports is much higher than the average size of fibroids reported in studies of older women. This reflects that there have been no true prevalence studies of fibroids in adolescents, and the cases described here probably reflect only the more severe or unusual presentations that would merit writing up a case report. It is reasonable to suggest that the true prevalence of fibroids is unknown in this age group and the very large fibroids described in the case reports may not reflect the "typical" fibroids in young women.

5. PRISMATIC flow diagram. The last box in the diagram indicates that 5 studies were included in the synthesis, but the text and Table 1 indicate that 19 reports were included.

6. Table 1. The listing of the studies in this table does not seem to have a logical
order of presentation. Listing them by publication date would make more sense.

Minor comments:
1. Background, lines 53-54. The word "few" should be inserted before "reported cases" and "import" should be "important".
2. Results, line 90. "Histeroscopically" should be "Hysteroscopically".

Level of interest: An article of importance in its field

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

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

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