Reviewer’s report

Title: Analysis of the association between paternity and reoperation for urethral obstruction in adult hypospadias patients who underwent two-stage repair in childhood

Version: 1 Date: 18 May 2019

Reviewer: Kimihiko Moriya

Reviewer’s report:

The authors presented the long-term outcome of hypospadias surgery with special emphasis on paternity based on the questionnaire study. They demonstrated that history of reoperation for urethral obstruction was associated with lower paternity rate. This finding was interesting, however, the number of patients with urethral obstruction was unfortunately too small especially those under marriage to confirm this finding.

1. This kind of questionnaire based study is prone to be biased between responders and non-responders. To generalize the outcome of this study, responders should be a representative cohort of each group. Did authors evaluated the background of the patients between responders and non-responders with stratification of each group?

2. Was the age of partner of patients with marriage asked? Since the age of marriage was later in the Study group, the age of their partner would be higher.

3. As authors pointed out, age at marriage was significantly higher in Study group than Study control. That would be one of the reasons for the difference in paternity rate. When the age at marriage was matched between both groups, was paternity rate different?

4. In figure 3, each curve meant total reoperation rate, reoperation rate for non-obstructive complication, reoperation rate for obstructive complication.

5. Figure 3 demonstrated that timing of reoperation after initial surgery was similar between patients with obstructive and non-obstructive reason. Was the age at reoperation also similar? Mureau et al (J Urol 154, 1351-1355, 1995) reported "An important factor affecting psychosexual adjustment seems to be the age at which surgery was completed. The later the patients underwent surgery, the greater were their inhibitions in seeking sexual contacts and the later they made the first sexual contacts."

6. Were the patients regularly followed after surgery? If so, until when? Was functional evaluation using uroflowmetry performed? or symptom-based follow-up? If evaluation of urethral obstruction was indicated based on symptoms, there may be some patients in Study control who had similar degree of urethral obstruction with patients in Study group.
Please confirm that you have included your review in the ‘Comments to Author’ box? 
As a minimum standard, please include a few sentences that outline what you think are the authors’ hypothesis/objectives, their main results, and the conclusions drawn. Your report should constructively instruct authors on how they can strengthen their paper to the point where it may be acceptable for publication, or provide detailed reasons as to why the manuscript does not fulfill our criteria for consideration. Please supply appropriate evidence using examples from the manuscript to substantiate your comments. Please break your comments into two bulleted or numbered sections: major and minor comments.

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Are the methods appropriate and well described to allow independent reproduction of experiments? 
Please state in the ‘Comments to Authors’ box below what you think are the strengths and weaknesses of the methods (study design, data collection, and data analysis), and what is required, if anything, to improve the quality of reporting

Yes

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- Are the statistical test(s) used in this study appropriate and well described?

- Is the exact sample size (n) reported for each experimental group/condition (as a number, not a range)?

- Are the description of any error bars and probability values appropriate?

- Are all error bars defined in the corresponding figure legends?

- Has a sample size calculation been included, or a description and rationale about how sample sizes were chosen?

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