

Comment on: Kumar *et al.* Follow-up imaging after pediatric pyeloplasty. *Indian J Urol*, 2016;32:221-226

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Pyeloplasty is one of the common operations in pediatric urologic practice. However, there is no clear consensus on the follow-up of children after pyeloplasty: What tests, when, how many times, and for how long? These are the questions that need to be answered. There are two main reasons for follow-up testing: To confirm the success of pyeloplasty and to assess the function of the operated kidney. Ultrasound (USG) examinations, 3–6 months after surgery, are considered sufficient for follow-up, especially to ascertain the success of the operation.^[1] A recent survey in the United States has shown that USG is the most common, and in many cases, the only test used for postpyeloplasty follow-up in children.^[2] In kidneys with initial impaired function, a postoperative diuretic renogram (DR) may be obtained at a later date. Long ago, we demonstrated that kidney function after successful pyeloplasty continued to improve up to 1 year and then reached a plateau, without any further improvement at 5-year follow-up.^[3] Thus, if a DR is done after pyeloplasty, it may be better to delay it till 1 year.

The authors of this paper tried to answer these very questions about post-pyeloplasty follow-up. They should be congratulated for the excellent follow-up of a large number of children after pyeloplasty. They performed multiple DR studies post-pyeloplasty. The only problem is that DR in children requires intravenous cannulation and bladder catheterization (for a well-tempered study) and definitely poses some

risk of radiation to the child. I agree with the authors that a single post-operative DR is sufficient.

The authors seem to rely more on DR than on USG for follow-up. The reasons cited are that USG is operator-dependent, and reducing the size of the dilated pelvis would influence the validity of post-operative USG. Conversely, one could argue that pelvic reduction during routine pyeloplasty is unnecessary,^[4-6] and standard grading of hydronephrosis would ensure good inter- and intra-observer validity.^[7,8] Most importantly, the first postoperative USG could be used as a baseline for further follow-up. Thus, one cannot completely do away with USG for post-pyeloplasty follow-up; in kidneys with good pre-operative function, USG may be the only test required for follow-up. In our practice, we perform a USG 3 months after pyeloplasty, followed by DR at about 1 year after the surgery, to allow for assessment of maximal functional improvement of the operated kidney.^[9] Further follow-up is continued with yearly USG only.

Finally, I wish that all surgeons develop a strict follow-up protocol for their patients so that many more good scientific papers can be published from the subcontinent in future.

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