

Answer to reviewers :

Reviewer 1:

Thank you for review and comments.

1. English language and brevity need attention to trim the manuscript. There is redundancy in introduction and discussion. I suggest to focus the discussion around these two diagnostic modalities.

The English language in the document has been re-edited by Elsevier Language Editing Services. If there are any comments or concerns, please let me know

2. Methods needs a review by a radiologist (s) experienced in MR urography and MAG-3 renal scan.

As pediatric urologists at the renowned children's hospital, Robert Debré, we collaborated closely with expert specialized radiologists. All images, including those from other hospitals, were interpreted by our radiologists. Therefore, the radiologists were involved in this study.

3. I will suggest to publish as preliminary study as the number of patients is small. More patients needs to be added to strengthen the scientific value of study and meaningful "P" values

agree that further study is needed to confirm whether dMRU can be an excellent alternative to MAG-3

Reviewer 2:

First of all, the methodology is explained too complicatedly, it is not clear which patients were given MRU or scintigraphy and why, and the study groups and the tests applied to them need to be defined more precisely.

This retrospective cohort study included patients with UPJO who underwent surgery and renal scintigraphy MAG-3 + dMRU at Roberts Debré Children University Hospital between January 2016 and March 2020 but excluded those who underwent only renal scintigraphy MAG-3 or dMRU (Figure 1).

First, all patients underwent renal ultrasonography for the initial radiological evaluation of renal pelvic dilatation (Table 1). Those suspected of UPJO were then subjected to further renal function evaluations using scintigraphy MAG-3 or dMRU based on the available modality and the radiologist's experience. Because these patients did not require surgical correction of the UPJO, they were followed up in the clinic with renal ultrasonography. However, in situations where the patients had major dilatation of the renal pelvis on ultrasound findings during follow-up, we requested for another modality for comparison—i.e., if the patient had initially underwent scintigraphy MAG-3, we requested for dMRU, and vice versa. (Table 2)

The workflow where the work is done should be more clearly defined. The p values used in the demographic information section (Table 1-2) in the findings describe the result of which comparison?

Table 1 : * *p*-value: Common presentation of UPJO in the entire study cohort ($p < 0.05$ was considered statistically significant).

Table 3 : *p*-value: Potential risk factors for a discrepancy in renal function between Group A and Group B ($p < 0.05$ was considered statistically significant)

Although an imaging study was presented, no MRU or scintigraphy images were presented. Demonstrative case examples should be presented with their images and stories.

The study is targeting both pediatric urologists and radiologists. From our perspective, there's no need to include images as they are well-known to both specialties.

The discussion seems too short and simple. The use of the MRU technique should be explained in more detail and different methodological studies on the subject should be compared with existing findings.

However, in recent times, dMRU has emerged as an alternative technique for evaluating the drainage curve and split renal function in obstructive uropathy [11,12,13]. dMRU provides excellent anatomical information about the urinary tract and enables the precise exclusion of urinary tract obstruction, without requiring ionizing radiation [17]. It produces high-resolution images arising from the accumulation of bright contrast content in the collection system and ureter, which enables identification of the ureter distal to the obstruction site [15]. Since 2000, dMRU has been the main modality for evaluating renal function at the Robertson Debré Children University Hospital. However, despite its benefits, dMRU is not widely used because it is expensive and there is a lack of trained pediatric radiologists.

Few studies have investigated the diagnostic value of dMRU for obstructive uropathy. For instance, Perez-Brayfield et al. [13] reported that dMRU provides superior anatomical details compared with sonography and nuclear scintigraphy. MRU technique is a costly technique that is not available everywhere, and therefore it is difficult to replace it with scintigraphy. This should be stated and discussed in the discussion.

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The limitation this study include a small sample size from a single institution. The requirement for sedation during dMRU presents a practical challenge. Future implications emphasize the need for larger multicenter studies to confirm findings, while advancements in imaging technology hold promise for enhancing the accessibility and viability of dMRU as a gold standard diagnostic tool of UPJO.