## Re: Sharma GR, Sharma AG, Sharma NG. Comparison of two drainage parameters on diuretic renogram in predicting the fate of prenatally detected pelvi-ureteric junction-like obstruction. Indian J Urol 2022;38:216-9

We have read with great interest, the article by Sharma *et al.*,<sup>[1]</sup> comparing the T <sup>1</sup>/<sub>2</sub> and normalized residual activity (NORA)

in diuretic renograms. This is a promising marker to accurately diagnose ureteropelvic junction obstruction (UPJO). NORA was first described for by Piepsz *et al.*<sup>[2]</sup> in 2000, and as per their observation, NORA is an easily reproducible tool that was independent of renal function and time of furosemide injection. It is calculated by measuring residual counts in region of interest, i.e., the renal parenchyma and the dilated pelvicalyceal system for a duration of 1 min at 60 min of dynamic imaging as total percentage of the renal counts in the second min after injection of the radiopharmaceutical agent.<sup>[3]</sup> This article highlights the nonagreement between NORA and T <sup>1</sup>/<sub>2</sub> to diagnose UPJO.

However, while reading and understanding the article, we came across some issues. NORA versus T 1/2 can only truly be assessed through randomized controlled trials. The objective parameters must be designed as such to avoid any underdiagnosis. Surgery was advised only in six patients out of 34, when DRF reduced below 40% although 19 other patients showed poor T  $\frac{1}{2}$  curves. This means that neither NORA nor T  $\frac{1}{2}$ was taken into consideration in decision-making. In six patients who were advised surgery, in whom DRF reduced below 40%, only two patients were diagnosed as truly obstructive by NORA (33%) compared to five patients by T <sup>1</sup>/<sub>2</sub> method (83.33%). Finally, since the study had average follow-up of 26 months, it would be important to know the follow up of those 19 patients with poor T <sup>1</sup>/<sub>2</sub> in whom surgery was not advised. This would further augment the belief that NORA was better tool to accurately detect the patients who did well without surgery.

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## REFERENCES

- Sharma GR, Sharma AG, Sharma NG. Comparison of two drainage parameters on diuretic renogram in predicting the fate of prenatally detected pelvi-ureteric junction-like obstruction. Indian J Urol 2022;38:216-9.
- Piepsz A, Tondeur M, Ham H. NORA: A simple and reliable parameter for estimating renal output with or without frusemide challenge. Nucl Med Commun 2000;21:317-23.
- Majd M, Bar-Sever Z, Santos AI, De Palma D. The SNMMI and EANM procedural guidelines for diuresis renography in infants and children. J Nucl Med 2018;59:1636-40.

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