



Reply to correspondence “Isolated antenatal hydronephrosis with renal pelvis antero-posterior diameter ≤ 20 mm”

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We appreciate Dr. Salvatore and Dr. Carmelo’s interest in our article [1]. As they have stated, our cohort consists of patients with AP diameter ≤ 20 mm and $<$ SFU Grade IV, which is the most common group of children we see in daily practice [2]. The idea of our manuscript came up with the question ‘How long should we need to follow-up this group of children?’ that we came across at the first postnatal visit. As these patients are very less likely to undergo surgery, the duration of follow-up should be kept minimal to reduce costs and parental anxiety without compromising patient health. Our results indicate that complete resolution may be expected to happen in 3 years, while many patients will show regression of hydronephrosis in the first year of life.

With regard to AP diameter and SFU classification systems, they both have advantages and disadvantages; however, they are the most commonly used tools for assessing hydronephrosis. AP diameter is a relatively reliable method as a numerical value is given. However, it can be affected by hydration status and bladder fullness. Besides, it gives no information about caliceal dilatation and parenchymal status.

In their nicely written study, the authors have investigated a challenging patient group that has poor drainage but good

differential renal function [3]. As they have concluded, poor drainage patterns might not always indicate obstruction. Previously, Koff et. al also showed that $T_{1/2}$ might be inaccurate due to exaggerated enlargement of renal pelvis when assessing children < 2 years of age [4]. Of note, patients with SFU Grade III in our study underwent scintigraphic evaluation.

Consequently, we think serial ultrasonography is the key for the evaluation of antenatal hydronephrosis and scintigraphic evaluation should be considered in cases with peripheral caliceal dilatation, and/or increase in AP diameter or degree of hydronephrosis.

Compliance with ethical statements

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors.

References

1. Arena S, Romeo C (2019) Isolated antenatal hydronephrosis with renal pelvis antero-posterior diameter ≤ 20 mm. *Eur J Pediatr* 178:1443. <https://doi.org/10.1007/s00431-019-03430-8>
2. Elmacı AM, Donmez MI (2019) Time to resolution of isolated antenatal hydronephrosis with anteroposterior diameter ≤ 20 mm. *Eur J Pediatr* 178:823–828. <https://doi.org/10.1007/s00431-019-03359-y>
3. Arena S, Chimenz R, Antonelli E, Peri FM, Romeo P, Impellizzeri P, Romeo C (2018) A long-term follow-up in conservative management of unilateral ureteropelvic junction obstruction with poor drainage and good renal function. *Eur J Pediatr* 177:1761–1765. <https://doi.org/10.1007/s00431-018-3239-2>
4. Koff SA, Binkovitz L, Coley B, Jayanthi VR (2005) Renal pelvis volume during diuresis in children with hydronephrosis: implications for diagnosing obstruction with diuretic renography. *J Urol* 174:303–307. <https://doi.org/10.1097/01.ju.0000161217.47446.0b>

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