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CORRESPONDENCE

Isolated antenatal hydronephrosis with renal pelvis antero-posterior diameter ≤ 20 mm

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We read with great interest the paper written by Elmaci and Dönmez [2]. The authors performed a retrospective study on mild antenatal detected isolated hydronephrosis, including patients with renal pelvis antero-posterior diameter (RPAPD) ≤ 20 mm and excluding patients with associated ureteral dilation, renal anomalies, vesico-ureteral reflux, posterior ureteral valve, and SFU grade IV hydronephrosis. According to their data, a spontaneous resolution was achieved in 93% and 51% of patients with RPAPD < 10 and RPAPD 10–20 mm, respectively, with overall resolution in 71% of patients with RPAPD ≤ 20 mm. Furthermore, surgery was not required in any of their study patients. Recently, we reported our experience in pediatric patients with neonatally diagnosed unilateral hydronephrosis due to ureteropelvic junction obstruction with poor drainage but good differential renal function at renal scan [1]. According to our experience, all patients with a RPAPD ≤ 15 mm did not require any surgical procedure and were safety conservatively managed even if they had a poor drainage at first renal scan. We are convinced that in P1, according to the urinary tract dilatation (UTD P1) grading system [3], it is not necessary to perform any diuretic renography (DRG) aimed to evaluate the drainage as isolated hydronephrosis with RPAPD ≤ 15 mm does not have a tendency to impair the renal function or to get worse. In a different way, in our opinion, patients with a RPAPD 15–20 mm deserve to be better investigated performing DRG because it is not uncommon that they have an impairment of differential renal function during follow-up, especially in cases of poor drainage at first DRG.

Finally, we want to congratulate the authors for their stimulating original article and we hope that further evidence-based articles can be supportive in drawing up guidelines of management of isolated antenatal hydronephrosis.

References

1. 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(12):1761–1765. https://doi.org/10.1007/s00431-018-3239-2
2. Elmaci AM, Dönmez Mİ (2019) Time to resolution of isolated antenatal hydronephrosis with anteroposterior diameter ≤ 20 mm. Eur J Pediatr Jun 178(6):823–828. https://doi.org/10.1007/s00431-019-03359-y
3. Nguyen HT, Benson CB, Bromley B, Campbell JB, Chow J, Coleman B, Cooper C, Crino J, Darge K, Herndon CD, Odibo AO, Somers MJ, Stein DR (2014) Multidisciplinary consensus on the classification of prenatal and postnatal urinary tract dilation (UTD classification system). J Pediatr Urol 10(6):982–998. https://doi.org/10.1016/j.jpurol.2014.10.002

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