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CORRESPONDENCE

Spontaneous resolution of congenital anomalies of the kidney and the urinary tract (CAKUT)

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To the Editor

We read and appreciated very much the article written by Nef S et al. [6].

The authors documented that 33 and 54 % of pediatric patients in the low and high risk group, respectively, need surgery. High risk includes seven patients with antenatal diagnosis of posterior urethral valves, where the antenatal diagnosis of "megabladder" was put in six of seven cases. We would like to point out that an antenatal sonographic aspect of "megabladder" should be considered a sign of poor prognosis.

We totally agree that most congenital anomalies of the kidney and urinary tract (CAKUT) call for conservative management. We previously documented that only 22 % of children with neonatal or antenatal diagnosis of primary obstructive megaureter required surgical treatment [3], that spontaneous improvement of hydronephrosis in children with ureteropelvic junction obstruction could be linked to a late rearrangement of cytoskeleton of smooth muscle cells [4], and that a late maturation of ureteric ends is coherent with a possible spontaneous resolution of vesico-ureteral reflux [1, 2, 5].

Because the spontaneous resolution of CAKUT may require several years, parents should be informed on the duration of observational management and the potential for a non-spontaneous resolution of the abnormality.

Authors' Contributions SA: conception and design of the study, drafted the manuscript. CR: supervised the whole study process.

Compliance with ethical standards

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

References

1. Arena S, Fazzari C, Arena F, Scuderi MG, Romeo C, Nicòtina PA, Di Benedetto V (2007) Altered 'active' antireflux mechanism in primary vesico-ureteric reflux: a morphological and manometric study. BJU Int 100:407–412. doi:10.1111/j.1464-410X.2007.06921.x
2. Arena S, Favaloro A, Cutroneo G, Consolo A, Arena F, Anastasi G, Di Benedetto V (2008) Sarcoglycan subcomplex expression in refluxing ureteral endings. J Urol 179:1980–1986. doi:10.1016/j.juro.2008.01.059
3. Arena S, Magno C, Montalto AS, Russo T, Mami C, Baldari S, Romeo C, Arena F (2012) Long-term follow-up of neonatally diagnosed primary megaureter: rate and predictors of spontaneous resolution. Scand J Urol Nephrol 46:201–207. doi:10.3109/00365599.2012.662695
4. Cutroneo G, Arena S, Anastasi G, Cervellione RM, Grimaldi S, Di Mauro D, Speciale F, Arena F, Di Benedetto V, Favaloro A, Magno C (2011) Altered cytoskeletal structure of smooth muscle cells in ureteropelvic junction obstruction. J Urol 185:2314–2019. doi:10.1016/j.juro.2011.02.045
5. Di Benedetto A, Arena S, Nicotina PA, Mucciardi G, Galì A, Magno C (2013) Pacemakers in the upper urinary tract. Neurourol Urodyn 32:349–453. doi:10.1002/nau.22310
6. Nef S, Neuhaus TJ, Spartà G, Weitz M, Buder K, Wisser J, Gobet R, Willi U, Laube GF (2016) Outcome after prenatal diagnosis of congenital anomalies of the kidney and urinary tract. Eur J Pediatr 175:667–676. doi:10.1007/s00431-015-2687-1

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