

Evaluation of Children With Hematuria: Devel Lies in the Details!

We read with interest the paper by Mishra, et al. [1], and would like to compliment the authors on their work highlighting the importance of gross hematuria in children with various renal disorders. We have the following queries related to the paper:

The authors have noted infection-related glomerulonephritis (IRGN) to be the commonest cause of hematuria in their study; however, there is no clarity from methodology how IRGN was diagnosed. It is also not clear whether these children recovered completely on follow-up or if any of these children met the criteria for kidney biopsy [2] due to delayed or non-resolution, and reclassified as C3GN, which is known to present similarly [3].

In non-glomerular hematuria, the children labeled to have unknown cause could possibly have nutcracker syndrome, which is an important, and not so rare, cause of painless hematuria in children [4].

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AUTHORS' REPLY

We thank the authors for their interest in our study [1]. We herein provide detailed responses to the issues raised:

For the study purpose, all diagnoses, including IRGN, were made based on standard diagnostic criteria [2], and it was not

possible to define them individually in the article, due to constraints of word limit. Most of the children diagnosed as IRGN were post-streptococcal glomerulonephritis. Others were those having similar presentation with self-limited course, quick recovery and normalization of kidney functions and C3, though, without raised ASO titres (other serological tests for evidence of streptococcal infection are not available in our hospital), but clinically and history-wise best explained as having an IRGN. Regarding kidney biopsy, as well as all further evaluations, standard indications were followed [3], as also mentioned in methods section of the paper. Recovery and follow-up details are already available in the Results section [1]. The diagnosis of IRGN was established with certainty only after following up C3 levels and ASO titers, if raised, till resolution.

In this study, four children with non-glomerular hematuria were labelled to have unknown cause. Nutcracker syndrome is one of the known causes of unexplained gross hematuria, which commonly presents with specific clinical features like pelvic or flank pain, varicocele, recurrent episodes, with an overall incidence of less than 2% of all children with hematuria [4]. However, this was not diagnosed in the four children after ultrasound, Doppler and cystoscopy, which are part of our department's work-up protocol in a child with non-glomerular hematuria. Moreover, the treatment for nutcracker syndrome is conservative till the age of 18 years as symptoms are known to resolve in many. All these patients with unexplained hematuria are under regular follow-up.

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