



Corticosteroids in pediatric kidney scar prevention after urinary tract infection: Are they really useful?

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Dear Editors,

We write regarding the article *The efficacy and safety of corticosteroids in pediatric kidney scar prevention after urinary tract infection: A systematic review and meta-analysis of randomized clinical trials*, published in *Pediatric Nephrology* [1].

Urinary tract infection (UTI) is a common bacterial infection in children, with approximately 60% of febrile cases classified as acute pyelonephritis (APN), carrying a risk of kidney scarring and long-term complications. Corticosteroids have been proposed as a potential strategy to mitigate APN-induced inflammation.

While we acknowledge the efforts of Gkiourtzis et al. [1], we have concerns about methodological issues that may affect their conclusions. The five included trials (498 children) show significant heterogeneity in corticosteroid type, dosage, administration route, and treatment duration. Additionally, some studies did not confirm APN using the gold-standard technique, potentially leading to overdiagnosis in up to 40% of febrile UTI cases.

We also identified inaccuracies in data extraction. For instance, in the study by Rius-Gordillo et al. [2], the renal scar rate was 22% in the dexamethasone group and 21% in

the placebo group (11/60 vs. 9/56), but these data were misreported. Similarly in the Ghaffari study [3] the final number of DMSA performed was 18, not 60 so the data included may not be accurate.

To clarify this issue, we refer to the updated Spanish Clinical Practice Guidelines [4], which include a refined meta-analysis with subgroup stratification. Among patients with confirmed APN (73 corticosteroid vs. 119 placebo), corticosteroids did not significantly reduce kidney scarring risk (*RR* 0.76; 95% *CI* 0.47–1.23).

Given these considerations, we believe the authors' conclusions should be re-evaluated due to methodological inconsistencies and study heterogeneity.

References

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