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Letter to the Editor

The Impact of Ursodeoxycholic Acid on Indirect Hyperbilirubinemia in Infants Treated with Phototherapy: A Letter to the Editor Regarding a Single-Blind Randomized Clinical Trial

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Dear Editor-in-Chief

We recently had the pleasure of reading the article titled "The Impact of Ursodeoxycholic Acid on Indirect Hyperbilirubinemia in Infants Treated with Phototherapy: A Single-Blind Randomized Clinical Trial" by Mohammad Sobhani Shahmirzadi and colleagues, published in your esteemed journal (October 2024, Volume 15, Issue 4). This study addresses a crucial aspect of neonatal care, and we commend the authors for their insightful contributions to this important field.(۱)

Indeed, jaundice remains one of the leading causes of hospitalization among newborns, and it can have serious repercussions, including permanent neurological damage or even death, if not addressed promptly (2). Indirect hyperbilirubinemia, a specific type of jaundice, poses particular challenges for clinicians and families alike (3). Given these risks, the potential of Ursodeoxycholic Acid (UDCA) to serve as an effective adjunctive therapy in managing neonatal jaundice is encouraging, especially in light of its safety, cost-effectiveness, and practicality in real-world clinical settings.

In the specific study under discussion, the authors provide important insights into the benefits of UDCA in shortening hospitalization duration and the need for phototherapy (1). However, we believe a few key points warrant further discussion. Firstly, there is contradictory evidence; prior research, including a study by S. M. Hashemi and colleagues, has cast doubt on the efficacy of UDCA in clinical practice (4). Although indications suggest UDCA may reduce total bilirubin levels more quickly than standard treatments, the quality of this evidence remains low. To ensure UDCA can be safely and effectively incorporated into clinical routines, further rigorous research is necessary to confirm its effectiveness, safety, and both short- and long-term consequences.(۵)

Secondly, side effects have been reported following the administration of UDCA. While the authors appropriately outline certain side effects associated with UDCA, such as diarrhea and fever, it is vital to provide a more comprehensive overview of potential adverse effects. These might further include weakness, swelling of the lower limbs, increased thirst and urination, bleeding, bruising, gastrointestinal disturbances, dizziness, and fatigue. Additionally, comparing the efficacy and side effect profiles of UDCA with other oral medications, such as phenobarbital and clofibrate, would offer a broader perspective on its relative advantages and limitations.(۶)

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Finally, some methodological aspects may merit reconsideration. The study in question utilized a single-blind randomized controlled trial (RCT) design. However, given the objective nature of the study's outcomes, it may be worth revisiting the necessity of parental blinding. Addressing these methodological points could enhance both the transparency and reliability of the findings, ultimately benefiting the medical community and families.

Conclusion

UDCA appears to be a promising, safe, and cost-effective option for reducing neonatal jaundice when used alongside phototherapy. Nonetheless, it is essential that we continue to evaluate its effectiveness and safety compared to other established oral treatments. We appreciate the authors' contributions to this vital area of research and suggest further investigations to deepen our understanding and improve the management of neonatal jaundice.

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