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Editorial

Topical Rifampin and Infection in Open Neural Tube Defects

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Abstract

We commend the study, "Efficiency of Topical Rifampin on Infection in Open Neural Tube Defects: A Randomized Controlled Trial," for its valuable insights into infection prevention in open neural tube defects (NTDs). However, several aspects warrant further discussion to enhance the robustness and applicability of the findings. The study does not specify the follow-up duration, a critical omission as ventriculoperitoneal (VP) shunt-related infections may develop over time. Extending the follow-up could provide a more comprehensive evaluation of rifampin's long-term efficacy and safety. Furthermore, although no adverse effects were reported, the study lacks details on monitoring procedures, limiting conclusions about rifampin's safety profile. Another concern is the significantly higher rate of cerebrospinal fluid (CSF) sac ruptures in the rifampin group (p=0.006). The absence of discussion regarding potential causes and clinical relevance of this finding requires further investigation. Additionally, the study's focus on paraplegic newborns with open NTDs raises questions about generalizability. A broader inclusion, as seen in another study addressing paraplegic and non-paraplegic cases, found meningitis or VP shunt infections in 6.7% and surgical site infections (SSI) in 3.3% of patients treated with topical rifampin.Clarifying these issues, particularly regarding long-term outcomes, adverse event monitoring, and generalizability, would strengthen the study's conclusions. Addressing the implications of CSF sac rupture rates is also crucial. We hope these observations contribute to ongoing research in this critical area.

Keywords: Topical Rifampin, Neural Tube Defects, Infection Prevention

Dear Editor

We would like to express our appreciation for the study titled "Efficiency of Topical Rifampin on Infection in Open Neural Tube Defects: A Randomized Controlled Trial."[1] This research provides valuable insights into the potential benefits of topical rifampin for infection prevention in open neural tube defects (NTDs). However, we would like to highlight several aspects of the study that need further consideration and discussion.

Firstly, the study does not explicitly mention the duration of the follow-up period. Infections related to ventriculoperitoneal (VP) shunts, in particular, may develop later.[2] Therefore, extending the follow-up period could provide a more comprehensive assessment of rifampin's long-term efficacy and safety. Another area of concern is the lack of detail regarding adverse events monitoring. Although the study reports no observed side effects, a more thorough description of the monitoring procedures for potential adverse events associated with rifampin would be beneficial. This would help clarify the safety profile of rifampin in this context.

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Furthermore, the study reports a statistically significant higher rate of cerebrospinal fluid (CSF) sac ruptures in the rifampin group (p=0.006)[1]. However, the discussion does not explore the potential reasons behind this finding. This aspect warrants further investigation or at least a discussion on its clinical relevance.

Lastly, the study focuses specifically on paraplegic newborns with open NTDs. It would be helpful to explain the rationale for including only paraplegic cases and whether the findings can be generalized to non-paraplegic patients with open NTDs. There is another study on the same topic titled "Powder Topical Rifampin for Reducing Infections After Neural Tube Defect Surgery in Infants"[3], which considered both paraplegic and non-paraplegic cases. The results showed that in the post-operative period, meningitis or VP shunt infections were observed in 6.7% of patients, and surgical site infections (SSI) occurred in 3.3% of the experimental group treated with topical rifampin.[3]

Addressing these points could enhance the robustness and applicability of the study's findings. Thank you for considering our observations.

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Conflict of Interest

All authors assure that there is no conflict of interest.

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Not Applicable

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