

Comparison of Hypertonic Saline with Normal Saline Nebulization in the Management of Bronchiolitis in Children

Dr. Muhammad Waqas

Services Hosptial Lahore, Pakistan

drwaqasbhatti841@gmail.com

+923448373341

ABSTRACT

Objective: “To compare the outcome of hypertonic saline with normal saline nebulization in management of bronchiolitis in children”

Study design: Randomized controlled trial.

Study place and duration: Department of Pediatrics, Hameed Latif Hospital, Lahore from 1st Oct 2024 to 15th April-2025.

Methodology: Sixty infants fulfilling selection criteria were enrolled through emergency and were randomly divided in two groups. In group A, infants were given hypertonic (3%) saline nebulization. In group B, infants were given normal saline nebulization. Clinical severity score (CSS) was noted after 30, 60 and 120 minutes of nebulization and change in CSS was calculated. All the data was noted in proforma and analysed in SPSS v.26.

Results: At baseline, the median CSS score was 3.00 (IQR: 0.00) in both groups, as all the infants had CSS score >2 at the time of presentation / enrolment. The median change after 30 minutes was observed as 1.00 (IQR: 1.00) with hypertonic saline and 1.00 (IQR: 0.25) with normal saline ($p<0.05$). The median change after 60 minutes was observed as 2.00 (IQR: 1.00) with hypertonic saline and 2.00 (IQR: 1.00) with normal saline ($p<0.05$). The median change after 120 minutes was observed as 3.00 (IQR: 1.00) with hypertonic saline and 2.00 (IQR: 0.25) with normal saline ($p<0.05$).

Conclusion: The outcomes in terms of reduction in clinical severity score of bronchiolitis with hypertonic saline nebulization is better than normal saline nebulization.

Keywords: Bronchiolitis, saline, children