

The therapeutic effect of 5% and 7% saline in infancy bronchiolitis

Introduction: Some studies have provided reports about significant effects of hypertonic saline on length of stay for infants hospitalized with viral bronchiolitis. This study was conducted with the aim of comparison between effect of 5% and 7% saline on bronchiolitis treatment in infants.

Materials and Methods: The study population of this clinical trial was 90 infants aged 2 to 24 months with viral bronchiolitis. The patients divided into three equal groups (n=30 in each group). The first group treated with 0.15 mg/kg adrenaline along with hypertonic saline 5%, The second group treated with 0.15 mg/kg adrenaline along with hypertonic saline 7%, and the third group as the control group treated with the standard treatment, namely, 0.15 mg/kg adrenaline along with normal saline 0.9%. For all patients in the three groups, clinical symptoms (cough, wheezing, respiratory rate, heart rate, fever, crackles, oxygen saturation) and length of hospital stays were recorded.

Result: The mean age of patients was 5.51 ± 3.62 months, and 59 cases (65.6%) were male. There was no difference between the three groups of patients, in terms of age, sex, duration of disease before hospitalization, antibiotic use before admission, and clinical symptoms at admission time ($P > 0.05$). The duration of cough and crackles, and the average days of hospitalization was significantly lower in patients receiving hypertonic saline 5% and 7%, compared with patients receiving normal saline ($P > 0.05$). There were no differences between two groups receiving saline hypertonic 5% and 7% in this respect.

Conclusion: using of hypertonic saline 5% and 7% has a significant effect on reducing healing time and length of hospital in infants with viral bronchiolitis aged 2 to 24 months.

Keywords: Bronchiolitis, Hypertonic Saline 5%, Hypertonic Saline 7%.