

## عنوان مقاله:

The Use of Albumin Add-on Therapy to Loop Diuretic for the Management of Pleural Effusion in Mechanically Ventilated Ill Children

## محل انتشار:

مجله دانشگاه علوم پزشکی کرمان، دوره 28، شماره 6 (سال: 1400)

تعداد صفحات اصل مقاله: 7

## نویسندگان:

Mohammadreza Habibzadeh - *Department of Anesthesiology, Isfahan University of Medical Sciences, School of Medicine, Isfahan, Iran*

Amir Shafa - *Department of Anesthesiology, Isfahan University of Medical Sciences, School of Medicine, Isfahan, Iran*

Hassan Zamani - *Department of Anesthesiology, Isfahan University of Medical Sciences, School of Medicine, Isfahan, Iran*

## خلاصه مقاله:

**Background:** Pleural effusion (PE) is common in children with acute illness that are admitted to the intensive care unit (ICU). The present study aimed to investigate the efficacy of albumin add-on therapy to furosemide in contrast to furosemide treatment only for treating transudative PE. **Methods:** The present randomized clinical trial was conducted on fifty 1-12-year-old children (under mechanical ventilation admitted at ICU randomly allocated to treatment with daily furosemide only (۲ mg/kg) or albumin (۱ gr/kg) add-on therapy to furosemide (۲ mg/kg) for three days. The vital signs, venous blood gas, the pleural effusion volume, serum potassium level, potassium, and dopamine requirement were measured daily and compared between the groups. **Results:** Comparison of the two groups showed a significant decrease in the pleural fluid volume ( $P<0.001$ ), base excess ( $P<0.001$ ), diastolic blood pressure ( $P=0.004$ ), heart rate ( $P=0.009$ ), and potassium ( $P=0.005$ ) in the intervention group than the control group. The mean of dopamine and potassium doses requirement were  $2.25 \pm 0.95$  and  $2.6 \pm 0.89$  for the intervention group, and  $1.0 \pm 0.00$  and  $2.0 \pm 1.41$  for the control group, respectively. The comparison of the two groups showed an insignificant difference between them ( $P=0.26$  for the dopamine injection and  $P=0.57$  for the potassium prescription). **Conclusion:** As the first study worldwide, considerable benefits were observed in the use of albumin and furosemide combination among PICU-admitted children under mechanical ventilation who required negative fluid balance. In addition, no hemodynamic instability or death was reported. During this short-term follow-up period, a satisfactory percentage of children were separated from the ventilator and transferred to the ward.

## کلمات کلیدی:

Loop diuretics, Albumin infusion, Mechanical ventilation, Intensive care

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1582576>



