

عنوان مقاله:

Evaluation of the Effect of Three Different Tidal Volumes on Internal Jugular Vein Collapsibility Index in Hypovolemic Mechanically-Ventilated Patients Before and After Fluid Therapy

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان، دوره 31، شماره 147 (سال: 1402)

تعداد صفحات اصل مقاله: 0

نویسندگان:

Alireza Zeraatchi - Dept. of Emergency Medicine, School of Medicine, Zanjan University of Medical Sciences, Zanjan, Iran

Fatemeh Safavi - Dept. of Anesthesiology and Critical Care Medicine, School of Medicine, Zanjan University of Medical Sciences, Zanjan, Iran

Taraneh Naghibi - Dept. of Anesthesiology and Critical Care Medicine, School of Medicine, Zanjan University of Medical Sciences, Zanjan, Iran

خلاصه مقاله:

**Background and Objective:** The diameter of the internal jugular vein changes with variations in intrathoracic pressure during inhalation and exhalation and this difference increases during hypovolemia. One of the causes of increased intrathoracic pressure in patients under mechanical ventilation is the tidal volume, which can affect the diameter of the internal jugular vein. On this basis, the present study was designed to investigate the effect of tidal volume on the internal jugular collapsibility index. **Materials and Methods:** In this clinical trial, 30 hypovolemic patients under mechanical ventilation were studied and three tidal volumes of 8, 10, and 12 cc/kg were applied to the patients. Subsequently, patients received fluid therapy and the measurements were repeated. Finally, the internal jugular vein diameters and the indices before and after the fluid therapy were measured in the three mentioned tidal volumes. A repeated measures t-test was used to compare the data. **Results:** The means of the internal jugular collapsibility index in the three tidal volumes of 8, 10, and 12 cc/kg were  $27.78 \pm 8.87$ ,  $28.11 \pm 10.24$ , and  $29.67 \pm 11.72$  ( $p = 0.577$ ) respectively before fluid therapy. These values were  $27.78 \pm 8.87$ ,  $28.11 \pm 10.24$ , and  $29.67 \pm 11.72$  ( $p = 0.288$ ) respectively, after fluid therapy. **Conclusion:** The results of this study showed that the internal jugular collapsibility index does not correlate with the tidal volume in hypovolemic patients and after fluid therapy.

کلمات کلیدی:

Internal jugular vein, Collapsibility index, Tidal volume, Hypovolemia, Ventilator

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1807344>

