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**Fluid response with the right internal jugular vein distensibility index**

**Respuesta al fluido con el índice de distensibilidad de la vena yugular interna derecha**

**ABSTRACT**

**Objective:** To value the ability of the right internal jugular vein distensibility index to identify the fluid response in critically ill patients ventilated.

**Methods**: A prospective study was conducted from July 2017 to February 2018 in the Intensive Care Unit - 8B at Hermanos Ameijeiras Surgical Clinical Hospital. The sample consisted of 87 ventilated patients with an indication of intravenous fluid infusion. The distensibility index of the inferior vena cava and the right internal jugular vein was determined by two methods: A-) (maximum diameter in inspiration - minimum in expiration) / minimum diameter; and B-) (maximum diameter in inspiration - minimum in expiration) / average. The fluid response was defined with lower vena cava distensibility index> 18% and> 12% for method A and B, respectively. The ability of the right internal jugular vein distensibility index to discriminate between patients, whether they respond or not to the fluid, was evaluated with the area under the curve of the receiver's operating characteristics.

**Results**: The correlation between the distensibility index of the inferior vena cava and the right internal jugular vein was significant with method A (r2 = 0.64; p <0.0001) and with method B (r2 = 0, 66; p <0.0001). The prevalence of the response to volume was 41.4% and 43.7% with method A and B, respectively. The right internal jugular vein distensibility index had an area under the curve of 0.83 (p <0.0001) with both methods. With method A we had a cut-off value of 5.76%, the sensitivity and specificity was 88.9% and 68.6%, respectively. With method B, there was a cut-off value of 5.60%, the sensitivity was 86.8% and the specificity was 69.4%.

**Conclusions:** The right internal jugular vein distensibility index is a feasible alternative to the inferior vena cava distensibility index to assess the fluid response in ventilated critically ill patients. Other studies are needed to confirm these results.

**Keywords:** volume response; inferior vena cava; internal jugular vein; mechanic ventilation.

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Use of a prognostic recovery system in postoperative period of emergency abdominal surgery

**Aplicación de un sistema pronóstico de reoperación en el posoperatorio de cirugía abdominal de urgencia**

**ABSTRACT**

**Objective:** To make evident the clinical validity of the support system for the prognosis of reoperation in the postoperative period of emergency abdominal surgery.

**Methods**: An explanatory, observational, cohort, prospective study was conducted from November 2016 to April 2017, with 59 patients who were in the postoperative period of major abdominal surgery and were admitted to the intermediate care units at Miguel Enriquez Surgical Clinical Hospital and in the Intensive Care Unit 8B at Hermanos Ameijeiras" Surgical Clinical Hospital. In order to decide the reoperation, these patients were evaluated according to clinical, laboratory and imaging criteria. Regardless of this evaluation, the probability of requiring reoperation through the aid system was estimated. For analyzing its utility, ROC curve was used and the best cut-off point with validity indicators was selected.

**Results**: 34% of the patients were reoperated (N = 20). The prognostic system correctly identified 85.7% of the patients that really needed to be reoperated (CI 68.4-100) and ignored 94.7% of the patients that did not need it (CI 86.3-100). The areas under the curve were 0.932 (CI 21-46.8) and 0.902 (CI 0.810-0.993) for reoperation and positive findings, respectively. The cut-off point with better sensitivity and specificity indicators was 0.635 in both cases.

**Conclusions**: The help system for the reoperation prognosis of proved to have excellent predictive value of the need for reoperation in patients with major abdominal post-surgery. It can be useful in clinical practice.

**Keywords:** abdominal cavity; reoperation; prognosis; general surgery; emergency surgery

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