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Optimizing¹ the value of measuring inferior vena cava diameter in shocked patients

Fikri M Abu-Zidan

Abstract

Point-of-care ultrasound has been increasingly used in evaluating shocked patients including the measurement of inferior vena cava (IVC) diameter. Operators should standardize their technique in scanning IVC. Relative changes are more important than absolute numbers. We advise using the longitudinal view (B mode) to evaluate the gross collapsibility, and the M mode to measure the IVC diameter. Combining the collapsibility and diameter size will increase the value of IVC measurement. This approach has been very useful in the resuscitation of shocked patients, monitoring their fluid demands, and predicting recurrence of shock. Pitfalls in measuring IVC diameter include increased intra-thoracic pressure by mechanical ventilation or increased right atrial pressure by pulmonary embolism or heart failure. The IVC diameter is not useful in cases of increased intra-abdominal pressure (ACS) or direct pressure on the IVC. The IVC diameter should be combined with focused echocardiography and correlated with the clinical picture as a whole to be useful.

Key words: Inferior vena cava diameter; Point-of-care ultrasound; Measurement**Match Overview**

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