



## Inferior Vena Cava Index in Edematous Patients

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### ABSTRACT

**Introduction:** To find a relation between extracellular over fluid and inferior vena cava index as a noninvasive, cost effective and accessible method. **Methods:** In a cross sectional study 54 cases (no edema 30, mild and moderate 13 and significant edema 11 cases) entered to study. Inferior vena cava index (IVCi) measured by difference of inspiration to expiration divided to maximum size multiply by 100, we also find delta ratio as difference of maximum to minimum size of inferior vena cava. All data expressed by rate and ratio, relation of edema severity to IVCi or delta ratio performed by mann whitney and regression test,  $P$  less than 0.05 was significant. **Results:** IVCi in 30 cases with no edema, 13 cases with mild to moderate and 11 cases with significant edema were  $46 \pm 16$ ,  $42 \pm 16$ ,  $38 \pm 17$ , there is a reverse relation of IVCi and edema severity but these relations were not significant ( $P > 0.05$ ). Averaged Delta ratio (millimeter) decreased in severe edema but it was not significant ( $3.7 \text{mm} \pm 2$  vs.  $2.8 \text{mm} \pm 1.6$ ). **Conclusion:** In edematous conditions IVCi and delta ratio decrease but these changes are not significant for edema severity estimation.