

# In COVID-19 pneumonia, high-sensitive troponin I independently related with tricuspid regurgitation pressure gradient

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## Abstract

Background: We aimed to determine the clinical, laboratory and echocardiographic parameters associated with an increased high-sensitivity cTnI (hs-cTnI) levels in COVID-19 pneumonia who admitted to the emergency department. Methods: This cross-sectional study included 70 COVID-19 patients with and without pneumonia. In addition to medical history, physical examination and laboratory tests, echocardiography and lung computed tomography was performed. The hs-cTnI value of the patients' [?]14ng/L for men and [?]18ng/L for women was considered as an increased hs-cTnI. The patients were compared in two groups, with and without pneumonia. Results: Tricuspid regurgitation pressure gradient (TRPG) were higher in patients with COVID-19 pneumonia ( $p<0.05$ ). Tricuspid annular plane systolic excursion (TAPSE) were lower in patients with COVID-19 pneumonia ( $p<0.05$ ). In regression analysis; HR, NT-proBNP and TRPG was found to be related to hs-cTnI ( $p<0.01$ ). Discussion: The most important determinants of increased hs-cTnI level in these patients are; increased NT-proBNP and TRPG. Therefore, it is necessary to follow-up the RV functions and TRPG by echocardiography in patients with increased hs-cTnI and COVID-19 pneumonia.

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