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Title: Acute repercussions of noninvasive ventilation in patient with severe heart failure

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Body: Objective: To analyze the acute effects of noninvasive ventilation (NIV) on cardiac function in patients with severe heart failure (HF). Method: The study intervention in 10 patients with HF functional class III and IV (NYHA), ejection fraction (EF) ≤ 40%. Shan CPAP was used and CPAP 10 cm H2O for 60 minutes with an interval of 20 minutes. We analyzed Simpson ejection fraction (EF SIMP), cardiac output (CO), pulmonary artery pressure (PAP), heart rate (HR) and mean arterial pressure (MAP) by echocardiography and oxygen saturation (SaO2) monitored every 30 minutes. Results:

We observed a significant decrease in HR after CPAP 60' (71,13,17±13,17) compared to the initial rest (79,50±8,61, p=0,04) after using the PAM CPAP 30' (92,10±17,85) compared to the initial rest (97,50±18,04, p=0,01) and a significant increase in SaO2 after use CPAP 60' (97,70±0,67) compared to the initial rest (96,50±1,72, p= 0,04). And the variables FE SIMP, DC and PAP were not significantly different after administration of CPAP. Conclusion: CPAP significantly alter HR, MAP and SaO2. The NIV were no significant changes on the FE SIMP, DC and PAP.