

European Respiratory Society Annual Congress 2013

Abstract Number: 4057

Publication Number: P2572

Abstract Group: 4.2. Sleep and Control of Breathing

Keyword 1: Sleep disorders **Keyword 2:** Circulation **Keyword 3:** Extrapulmonary impact

Title: A worse cardiac function revealed by TDI in patients with congestive heart failure and Cheyne-Stokes breathing

Dr. Donato 25388 Lacedonia donatolacedonia@gmail.com MD ¹, Dr. Michele 25389 Correale m.correale@unifg.it MD ², Dr. Giovanna E. 25390 Carpagnano ge.carpagnano@unifg.it MD ¹, Dr. Tommaso 25391 Passero t.passero@unifg.it MD ², Dr. Lucia 25392 Forte l.forte@unifg.it MD ¹, Prof. Dr Matteo 25405 di Biase donatolacedonia@gmail.com MD ² and Prof. Dr Maria P. 25409 Foschino Barbaro mp.foschino@unifg.it MD ¹. ¹ Medical and Surgery Sciences - Section of Respiratory Diseases, University of Foggia, Foggia, Italy, 711100 and ² Medical and Surgery Sciences - Section of Cardiology, University of Foggia, Foggia, Italy, 711100 .

Body: Background Tissue Doppler Imaging (TDI) is used to better stratify dead risk in patients with congestive heart failure. Up today few studies have used this method to investigate the differences between patients with HF and Cheyne-Stokes breathing (CSB) with ones who haven't it. The aim of this study was to evaluate the impact of CSB on myocardic function by TDI. Materials and Methods 50 consecutive patients who afferent to Heart Failure Unit of University of Foggia were studied by conventional and Tissue Doppler echocardiography, and underwent to nocturnal poligraphy to evaluate the presence of sleep apnea and CSB. Results Mean age was 61,9±11,3 years, LVEF 38,41±11,5% and BMI was 31,6±3,9. 10 patients (20%) had high prevalence of CSB during the night. There wasn't any differences between this group and others ones about age, BMI, LVEF but there were many differences at TDI. Respect to patients without CSB, in ones who had it, late (A') diastolic peak velocity was lower (5,47±2,3 vs 7,9±2,6, p=0.04); the ratio of early to late diastolic velocity (E'/A') was higher (1,70±1,48 vs 0,76±0,31, p<0.01); EAS index [E'/(A' x S')] was higher (0,36±0,29 vs 0,16±0,11, p<0.01) and Isovolumic Relaxation Time (IRT) was lower (60,35±36,6 vs 113,5±48,3, p=0,04). There was also a positive correlation between percentage of CSB during the night and EAS index (0,76, p<0.01) and E'/A' (0,88, p<0.001). The presence of obstructive sleep apnea did not influenced this results. Conclusions Patients with HF and CSB have a worse cardiac function in compare with ones who haven't it. This condition is better evaluate by TDI that conventional echocardiography.