

Pilot Randomized Study of Estimation of Heart Rate Control on Decompensated Heart Failure Patients Needed Inotropic Support. Short Term Results

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Idea: The most often hospitalisations cause of HF patients is decompensation of onset HF. Among clinical signs of such patients there is high heart rate and often such patients need inotropic support. Fast beta-blockers titration is risky, so we investigate the possibility of heart rate control in decompensated heart failure patients receiving inotropic support.

Materials and methods: Patients with HF NYHA III-IV due to ischemic cause, hospitalized with decompensation and needed inotropic support, were included in the study. The inclusion criteria were systolic arterial pressure > 100 mmHg, and heart rate > 90 bpm, sinus rhythm. 41 patients were enrolled, 20 in each group. The first group (active treatment) received f-channel blocker in addition to standard therapy in a dose of 5 mg/BID with increasing to 7.5 mg/BID from the second day. The second group received standard therapy which includes (Nitrates, loop diuretics, inotropic support—ACEi, beta-blockers after relatively stabilization). All patients had Swan-Ganz catheterisation during 72 hours. Hemodynamics measurements were performed.

Results: HR in groups on 24 and 72 hour time points were 87 ± 7 bpm vs 101 ± 5 bpm and 65 ± 7 vs 89 ± 11 ($p=0,001$), PCWP on 24 and 72 hour time points were 20 ± 3 vs 21 ± 4 ($p=0,37$) and 15 ± 2 vs 19 ± 2 mmHg ($p=0,001$). CPP in groups on 24 and 72 hour time points were 49 ± 2 vs 44 ± 3 ($p=0,001$) and 54 ± 5 vs 48 ± 3 mmHg ($p=0,001$). Conclusion: Received data can let us say that f-channel blockers are well tolerated in decompensated heart failure. Faster heart rate decreasing leads to a faster patient stabilization. F-channel blockers increased positive effect in combination with Ca-sensitizer.