

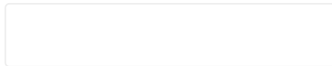


Session 1355 - Heart Failure and Cardiomyopathies: Therapy 6

1355-75 / 75 - EFFICACY OF ENHANCED EXTERNAL COUNTERPULSATION; IN IMPROVING SIX MINUTES WALK TEST IN HEART FAILURE PATIENTS

📅 March 29, 2020, 3:45 PM - 4:30 PM

📍 Posters Hall_Hall A



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Abstract

Background: Enhanced External Counterpulsation is an outpatient treatment to improve myocardial perfusion in chronic stable angina patients. We studied, the clinical response of symptomatic heart failure patients with reduced left ventricular ejection fraction improvement in the exercise tolerance and functional class with EECP.

Methods: We prospectively analysed 26 patients, who had undergone EECP with pre and post 6 minutes walk test, functional class assessed by the New York heart association classification, lipid profile, renal parameters and diastole to systole ratio in terms of Peak amplitude (P) and Area (A) under the curve value.

Results: The patients mean age of 56 yrs completed 35 sessions of EECP treatment. Patients demography includes 81% male, 50% DM, 30% HT, 30%smokers, 61% TVD and mean EF of $31.44 \pm 5.5\%$. All these patients are high risk for invasive procedures and advised EECP treatment. The six minute walk test, pre and post EECP improved from 340.14 ± 68.5 to 385.5 ± 73.9 meters ($P=0.0004$). All the patients improved at least in one NYHA class improvement, creatinine decreased from 4.6 ± 8.0 to 3.76 ± 5.1 mg/dL ($P = 0.62$), Urea decreased from 34.37 ± 20.28 to 27.24 ± 18.73 mg/dL ($P = 0.002$). In lipid profile, only LDL reduction from 94.41 ± 38.66 to 80.51 ± 35.09 mg/dL reached statistical significance ($P=0.03$). In 18 patients, who had pre and post ECHO done, EF increased from 31.44 ± 5.5 to $38.38 \pm 8.69\%$ ($P=0.001$). The P and A value measured during the start, mid and towards the end of EECP sessions show a linear increase in both parameters. P value from start to mid increase from 0.81 ± 0.24 to 1.14 ± 0.33 ($P=0.0001$), from mid to end increase from 1.14 ± 0.33 to 1.4 ± 0.39 , ($P=0.0001$), A value from start to mid increase from 0.98 ± 0.34 , to 1.44 ± 0.45 ($P=0.0001$), from mid to end increase from 1.44 ± 0.45 to end 1.96 ± 0.77 ($P=0.0005$).

Conclusion: EECP treatment in heart failure patients with reduced ejection fraction improves six minutes walking distance, functional class and ejection fraction significantly. The treatment has a positive effect on the serum urea and LDL levels. These observed effects may be due hyperdynamic circulation achieved by EECP and increased ejection fraction.