

**Title:** Beneficial role of integrated approach of pharmacological plus non pharmacological therapy in severe chronic heart failure patients

**Category:** Heart Failure and Cardiomyopathies

### **Abstract**

**Background:** Studies revealed non pharmacological therapy consisting of yoga, meditation ,exercise and education training, in combination with diet counselling ,stress management , Enhanced external counter pulsation machine (EECP) have good role to prevent worsening heart failure

**Aim:** Integrative program with focus on Integrated Medicine with life style intervention in patients with severe chronic heart failure and beneficial outcome of integrated approach.

**Methods:** The Observational study a 3-year outpatient : A total of 202 middle-aged men and women, chronic heart failure with Hypertension, dyslipidemia, type 2 Diabetes mellitus and obesity were enrolled. The usual care (routine allopath medicines) group A(n=106) and the integrated approach( allopathy plus non pharmacological ) with life style interventional group B (n=96). For Group B- Education, Exercise: supervised endurance and yoga , meditation with restricted diet and aerobics: three times a week for three months with Enhanced external counter pulsation machine (EECP) four cycle weekly for 5 months .

**Results:** Proposed lifestyle improved after year 3 in the group A over group B. There were significant differences between groups, mean changes (and their 95% confidence intervals, CI) in waist circumference  $p<0.001$ , in waist-hip ratio  $p<0.01$  , decrease in HR ( $p<0.01$ ), systolic BP ( $p<0.01$ ) and diastolic BP( $p<0.05$ ) blood cholesterol and sugar, HBA1C level . Recurrent hospitalization with congestive heart failure (CHF) in group A =23/106, group B =7/96(  $p<0.03$  ) . Atrial fibrillation in group A =12/106, group B =3/96 (  $p<0.08$  ).Ventricular tachycardia in group A =8/106, group B =3/96(  $p<0.23$  ). Death in group A =18/106, group B =6/96(  $p<0.36$  ).Post MI-CHF in group A =9/106, group B =3/96(  $p<0.36$  ). Post CABG-CHF in group A= 8/106, group B=2/96.

**Conclusion:** Regular 3-year follow-up improvements in quality of life, decrease stress, decrease incidence of cardio-vascular events , improve Exercise Score, better reduction of heart rate, blood pressure, weight, waist circumference, three to four time decrease episodes of recurrent hospitalization , Cardiac Arrhythmias and 33% reduction of cardiovascular mortality in integrated group as compare to usual group.