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**ABSTRACTS**

Abstracts Presentation (Oral):

**31.****Sampurna Hriday Shuddhikaran (SHS): A Novel Noninvasive Herbal Procedure to Improve Effort Tolerance in Chronic Heart Failure**

R SANE, M HANCHATE

Madhavbaug Ayurvedic Cardiac Rehabilitation Center, Raigad, India

**Objective:** Heart disease is a worldwide problem affecting people in all communities. India will bear 60% of the world's heart disease burden in the next two years and the average age of patients with heart disease is lower among Indian people who belong to the economically productive group. It is not only the lack of resources but also the inability to continue with the costly treatment that further adds to the woes of the patients. Inadequate pumping of heart leads to chronic heart failure which causes effort intolerance. Conditions like coronary artery disease, hypertension, post myocardial infarction, Cardiomyopathy, heart valve disease ultimately leads to CHF. Present study was carried out to evaluate the effect of the *Sampurna Hriday Shuddhikaran* (SHS) model in improving the exercise tolerance capacity of chronic heart failure patients.

**Methods:** Novel noninvasive interventional health model **Sampurna Hriday Shuddhikaran (SHS)** procedure was used to treat CHF patients at Madhavbaug Cardiac Rehabilitation Centre, Mumbai (INDIA). SHS combines the 4 pronged interventions of Snehan (oil massage to reduce vascular tone), Swedan & Hrid Dhara (thermal therapy to reduce salt & water retention and causing vasodilatation) and Basti (rectal herb to increase cardiac contractility) was used in each patient who received twice daily sessions of 90 mins each for 6 consecutive days. Symptomatic patients (age 17-80 years) with CHF (Grade 1-3 of NYHA classification), of either gender, with ejection fraction more than 25% & provided written informed consent

were included in study. Patients with history of Myocardial infarction in last 2 weeks, uncontrollable hypertension (SBP  $\geq 180$  & DBP  $\geq 110$  mmHg), severe hepatic/renal insufficiency, pregnancy/lactating were excluded. Evaluation parameters used were – Exercise Tolerance capacity [as measured by standard 6 minute walk test (6MWT)]; Improvement in Stress test (ST)]; Improvement in Grade of Symptoms (GOS); Improvement in maximum oxygen uptake (VO<sub>2</sub>max) & Improvement in metabolic equivalents (METs), which were taken on day 1 (pre-intervention) and on day 7 (post-intervention).

**Results:** A total of 1200 patients were evaluated. Mean age=55±9 years; Mean BMI=24.5±3.4 kg/msq; Preexisting Diabetes Mellitus on treatment=40%; Past history of coronary angiography/bypass=7%. The mean improvement in exercise tolerance as measured by in 6MWT & ST post- intervention was 70.6 meters/6 mins & 132.1±85.4 seconds/9 mins (p=0.03) respectively. The corresponding improvement in VO<sub>2</sub>max & METs was 3.1±3.44 lt/min & 2.23±1.9. Patient symptoms also improved. Vital parameters were stable. No significant adverse events were seen in any patient.

**Conclusions:** Novel noninvasive Sampurna Hriday Shuddhikaran procedure was effective in improving the exercise tolerance & oxygen uptake in symptomatic chronic heart failure patients and this improvement was independent of age, gender and BMI.