

# Increase in Coronary Perfusion following Enhanced External Counter Pulsation

Pradeep Nayar, Pramod Jaiswal, Joy M Thomas,

K Jai Shankar, Binoy John, Mohammed Musthafa,

GN Prasad, KM Cherian

International Centre for Cardiovascular and Thoracic Diseases.

Chennai

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Enhanced external counter pulsation (EECP) is a novel treatment modality being investigated for intractable angina not amenable to revascularization. The aim of our study was to examine the improvement in coronary perfusion by rest nuclear perfusion study in patients who have undergone EECP treatment. A total of 36 cases (27 males) were included in the study. All cases had undergone coronary angiography (CAG) for angina and were found to be unsuitable for revascularization in view of diffuse disease. The age ranged from 42 to 73 years and 72% were diabetics. Ejection fraction (EF) ranged from 15% to 62%. All patients underwent 35 hours (1 hour/day) of EECP. Rest thallium perfusion scan and echocardiography were done before and at the end of therapy. Ejection fraction EF increased by 10 to 32%  $\pm$  3.2% in the study population. Left ventricular (LV) volumes regressed by an average of 28.9 ml. Angina as assessed by Canadian Cardiovascular Society functional classification came down from 3.6 to 1.2. Perfusion assessed by rest thallium scan showed moderate improvement in nearly all cases. Quality of life as assessed by an institutionally prepared questionnaire showed very good improvement. We conclude that EECP is a viable modality of therapy in patients with severe symptoms, who are not amenable to conventional revascularization.

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