

# 4<sup>TH</sup> WORLD HEART CONGRESS

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## Successful surgical repair: Giant left ventricular aneurysm with ventricular septal defect and severe left ventricular dysfunction

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Most cardiac aneurysms develop after myocardial infarction. Post myocardial anteroseptal dysfunction or akinesia is treated by septal reshaping to improve outcome in patients with left ventricle dysfunction. The purpose of the surgical repair was to alleviate the deleterious effect of previous myocardial infarction by excluding the nonfunctional scarred area to achieve the original geometry of the ventricle along with myocardial revascularization and to close the Ventricular Septal Defect (VSD). The innovative way to repair these two mechanical complications of myocardial infarct is described here. A 56 year old man presented with breathlessness and chest discomfort since 11 days. On admission in a local hospital he was diagnosed as a case of acute myocardial infarction and was treated conservatively over there. He showed up in our hospital for breathlessness. The 2D-Echo revealed large apical left ventricular aneurysm with possibly concealed rupture and large apical VSD. He underwent coronary angiography which revealed 100% LAD occlusion. Left ventricular angiogram further confirmed large apical LV aneurysm having two separate openings draining into RV. He underwent coronary artery bypass surgery, LAD endarterectomy, VSD closure and Dor procedure for LV aneurysm. The patient with anterior wall myocardial infarction, VSD and severe LV dysfunction underwent closure of the septal defect with double velour Dacron patch and then septal reshaping was done. All the dyskinetic and akinetic septal areas were excluded using an oval Dacron patch sutured from healthy septal area to the anterior wall, resulting in a formation of new apex. After LAD endarterectomy, vein graft was put. Intraaortic balloon pump was inserted electively at the time of induction. He was extubated on day one. His inotropes were weaned off on day three and shifted to room the same day. His post-operative course remained uneventful. It was seen that this procedure resulted in significant reduction in left ventricular volume, increase in ejection fraction and improvement in NYHA class and a better apical geometry. This technique of septoventricular exclusion is a desirable surgical procedure for ventricular restoration. It preserves an adequate diastolic volume and provides better hemodynamic stability.

### Biography

Kewal Krishan is the Director of Heart Transplant and Ventricular Assist Devices, Principal, Consultant, Cardiothoracic Surgeon at Max Super Specialty Hospital, New Delhi. He has done four years Advanced Clinical Fellowships at world's top hospitals including Mayo Clinic, Rochester MN, USA and Mount Sinai Medical Center, New York, USA where he gained expertise in advanced therapies like heart transplant, LVADs and ECMO. He is one of handful surgeons in India who are formally trained in all aspects of thoracic transplantation including orthotopic and heterotopic heart transplantation. He has many publications in international journals to his name in this field including innovative techniques in ventricular assist devices.

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