

## Letter to the Editor

### **Cardiac Revascularization: CABG vs PTCA**

Madam, Coronary artery disease (CAD) is the leading cause of all the cardiovascular related morbidities and mortalities worldwide. As many as 4.5 million people in the developing world die of CAD each year. South Asians have the highest susceptibility to atherosclerosis making them most vulnerable to CAD related mortalities worldwide.<sup>1</sup>

Coronary Artery Bypass Grafting (CABG) and Percutaneous Transluminal Coronary Angioplasty (PTCA) though invasive, are by all means more effective and superior to the conventional medical therapy for the management of Myocardial Infarction (MI) patients. Primary PTCA is an emergency measure for the management of acute MI whereas CABG being a surgical procedure requires extensive pre operative preparation and cannot be used as a measure for acute management of MI.

Over the years many randomized trials have been carried out around the world indicating the long-term survival rates of both CABG and PTCA depending upon the anatomical site and extent of the disease. Although 20 year survival of CABG and PTCA is the same, the 3 year survival rate for patients undergoing PTCA for a single vessel CAD with no or insignificant (less than 70%) LAD blockage has been 2.9% better than those undergoing CABG. On the contrary, CABG proved superior to PTCA in terms of the 3 year survival rate of patients having either three vessels CAD or proximal LAD stenosis of more than 70%.<sup>2</sup> CABG being the more invasive procedure has longer recovery period, however, it is still the treatment of choice for patients requiring simultaneous valvular replacement.

A study carried out in United States and Canada demonstrated that as many as 54 % of patients undergoing

PTCA had at least one re-hospitalization in 5 years after the initial procedure compared to only 8 % re-hospitalization in patients who had undergone CABG over the same period.<sup>3</sup> The primary cost of CABG has been reported to be 53% higher than PTCA, however, the gap closes down to less than 5 % during the first two years due to the post-treatment morbidity associated with PTCA.<sup>4</sup>

In the setting of restenosis following PTCA in small vessels, diffuse narrowing and diabetes, drug eluting stents are being used with favorable results.<sup>5</sup> As a result of this in the recent past, there has been a significant change in clinical management of patients from surgical to percutaneous revascularization.

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#### **References**

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