

Early Post Acute Coronary Syndrome Referral to Coronary Artery Bypass Grafting (CABG); Trends and Outcomes from the Acute Coronary Syndrome Israeli Survey 2000–2010

Yaron Barac², Robert Klempfner¹, Ilan Goldenberg¹, Dan Aravot²

¹Leviev Heart Center, Sheba Medical Center, Israel

²The Cardiothoracic Department, Carmel Medical Center, Israel

Background:

Primary angioplasty is the treatment of choice in patients with acute myocardial infarction (MI). However, early surgical revascularization may be warranted in complex multi-vessel coronary disease. During the past decade, both percutaneous coronary interventions (PCI) and CABG have evolved tremendously.

Methods:

We evaluated trends in early coronary revascularization strategies and associated outcomes in ACS patients over 6 Acute Coronary Syndrome Israeli Surveys (ACSIS) conducted between 2000–2010.

Results:

Of the 11,536 patients included in the present study, 566 (4.9%) patients were referred to CABG during their stay in the ICU. Over the past decade, the use of PCI has significantly increased, while an opposite trend was observed for early CABG procedures (Figure). Patients who underwent early CABG displayed higher risk characteristics compared with patients who were referred for PCI during the index hospitalization, including a higher admission Killip class, anterior location of MI, moderate or severe left ventricular dysfunction, and use of mechanical ventilation ($p < 0.05$ for all). Outcomes analysis showed that patients who underwent PCI during the second half of the previous decade (2006–2010) had an improved survival compared to previous years (8.5% vs. 11.9%; $p < 0.001$), whereas mortality of patients undergoing early CABG did not significantly change during the respective periods (14.3% vs. 10.1%; $p = 0.15$).

Conclusions:

Over the past decade there has been decline in referral to early CABG in ACS, which was not associated with a corresponding significant improvement in survival rates, possibly due to the high risk clinical characteristics of ACS patients who are currently referred to early CABG.

Trend of CABG referred from coronary ICU over the past decade

