

Figure 1

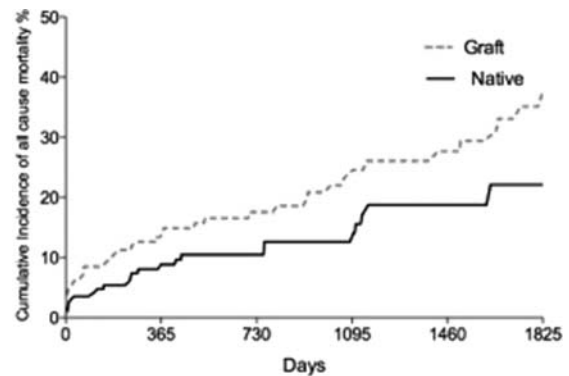


Figure 2

041

CORONARY ARTERY BYPASS GRAFT PATIENTS TREATED WITH PRIMARY PERCUTANEOUS CORONARY INTERVENTION HAVE HIGH LONG-TERM ADVERSE EVENT RATES (10 920 STEMI PATIENTS FROM THE LONDON HEART ATTACK GROUP)

M M Akhtar,¹ D A Jones,¹ K S Rathod,¹ B Modi,¹ P Lim,² G Viridi,³ D Bromage,¹ A J Jain,¹ S Singh Kalra,⁴ T Crane,⁵ P Meier,⁵ Z Astroulakis,² C Dollery,⁵ M Ozkur,⁵ R Rakhit,⁶ C J Knight,¹ M C Dalby,⁷ I S Malik,⁸ N Bunce,² M Whitbread,³ A Mathur,¹ S Redwood,⁹ P A MacCarthy,⁴ A Wragg¹ ¹Barts Health NHS Trust; ²St. George's Hospital; ³London Ambulance Service NHS Trust; ⁴King's College Hospital; ⁵London Heart Hospital, University College Hospitals; ⁶Royal Free Hampstead NHS Trust; ⁷Harefield Hospital, Royal Brompton and Harefield NHS Trust; ⁸Imperial College Healthcare NHS Trust; ⁹Guys and St Thomas' Hospitals NHS Trust

doi:10.1136/heartjnl-2013-304019.41

Background Limited information exists regarding procedural success and clinical outcomes of ST-segment elevation myocardial infarction (STEMI) in patients with previous CABG undergoing primary

PCI. We sought to compare outcomes in STEMI patients undergoing primary percutaneous coronary intervention (PCI) with or without previous coronary artery bypass grafts (CABG).

Methods This was an observational cohort study of 10,920 patients with STEMI who were treated with PPCI between 2004 and 2011 at eight tertiary cardiac centres across London, UK. Patient's details were recorded at the time of the procedure into the British Cardiac Intervention Society (BCIS) database. Outcome was assessed by all-cause mortality. Anonymous datasets from the eight centres were merged for analysis. The primary end-point was all-cause mortality at a mean follow-up of 3.0 years.

Results 347 (3.2%) patients had previous CABG. Patients with previous CABG were older and had more associated comorbidities than patients who have never had CABG. In patients with previous CABG, the infarct related artery (IRA) was split evenly between a bypass graft and a native vessel. Procedural success (defined as TIMI 3 flow at the end of procedure) was less likely in patients with previous CABG than in patients who had never undergone CABG (80.7 vs 88.2% respectively, $p < 0.001$). Patients with previous CABG had higher all-cause mortality (30.1% vs 16.7%, $p < 0.0001$) during the follow-up period (figure 1). After multivariate adjustment this difference persisted (HR: 1.3, 95% CI 1.11 to 1.63, $p = 0.02$). When stratifying prior CABG patients by the type of IRA (figure 2); long term MACE were significant more likely in patients who had bypass graft PCI than in patients that had native vessel PCI, 35.7% versus 20.4% ($p = 0.03$).

Conclusions Previous CABG patients with STEMI treated with primary PCI have higher long-term adverse events. The long-term outcome is also worse if the IRA is a bypass graft rather than a native coronary artery.