ACC-i2 with TCT

LATE BENEFIT OF INTRA-AORTIC BALLOON COUNTERPULSATION DURING HIGH-RISK PERCUTANEOUS CORONARY INTERVENTION: LONG-TERM MORTALITY DATA FROM THE BALLOON PUMP-ASSISTED CORONARY INTERVENTION STUDY (BCIS-1)

i2 Symposium
McCormick Place South, S102c
Saturday, March 24, 2012, 2:45 p.m.-3:55 p.m.

Session Title: Interventional Featured Clinical Studies II
Abstract Category: Interventional Cardiology
Presentation Number: 2645-12

Authors: _Divaka Perera_, _Rod Stables, Kalpa DeSilva, Matthew Lumley, Daša Zugwitz, Lucy Clack, Martyn Thomas, Simon Redwood, Kings College London, London, United Kingdom, Liverpool Heart and Chest Hospital, Liverpool, United Kingdom_

Background: BCIS-1 was a multicenter randomized controlled trial of elective intra-aortic balloon counterpulsation (IABC) during percutaneous coronary intervention in patients with severe left ventricular impairment and extensive coronary disease. There was no difference in the primary endpoint of MACCE at hospital discharge, capped at 28 days. We report long-term all-cause mortality in this cohort.

Methods: 301 patients were randomized to receive PCI with elective IABP support (n=151) or without planned IABP support (n=150). All-cause mortality data were collected by tracking the databases held by the Office of National Statistics (in England and Wales) and the General Register Office (in Scotland). Analysis by treatment assignment is shown below; as treated data will be also be presented. Cumulative event rates were estimated by the Kaplan-Meier method and compared using an unadjusted Cox proportional hazards model.

Results: The groups were balanced in terms of baseline characteristics (LVEF 23.6%, BCIS-1 Jeopardy score 10.3). Mortality data were available for the entire cohort at a median of 51 months (IQR 41, 58) from randomization. All-cause mortality at follow-up was 28% in the Elective IABP group and 38.7% in the group who had PCI without planned IABP support (HR 0.66, 95% CI: 0.44 - 0.98, p=0.04).

Conclusion: Elective IABP support during PCI for severe ischemic cardiomyopathy was associated with a late mortality benefit compared to unsupported PCI, despite the lack of difference in early MACCE.

Cumulative Mortality Estimates by Treatment Assignment

Number at risk						
No planned IABP	150	130	117	93	52	19
Elective IABP	151	137	127	111	66	21