CONCLUSION Primary angioplasty in bifurcation using a complex strategy vs simple, get better myocardial reperfusion in the main vessel, although more radiation exposure and a slight increase in use of contrast without deterioration of renal function. No differences in the presentation of MACE or follow-up mortality were observed.

CRT-200.48

Acute Myocardial Infarction in Elderly Is Associated With Poor Reperfusion Microvascular After Primary Angioplasty

Martín Valdebenito,[1] Dante Lindefjeld,[1] Nicolás Veas,[2] José Luis Winter,[2] Manuel Méndez,[1] Osvaldo Pérez,[1] Gonzalo Martínez,[1] Alejandro Martínez[1]
[1]Hospital Clínico Universidad Católica, Santiago, Chile; [2]Hospital Sótero del Río, Santiago, Chile

BACKGROUND The microvascular reperfusion (MR) is closely related to morbidity and mortality in acute myocardial infarction (AMI) treated with primary angioplasty (PA). It is uncertain the result of MR in elderly patients treated with PA.

OBJECTIVE To compare the characteristics of the MR after to perform a PA among patients > 75 years versus younger.

METHODS An observational analytic study, retrospective cohort. Were evaluated all AMI treated with PA in Dr. Sotero del Rio Hospital between June 2013 and July 2014. We compared the clinical, angiographic characteristics and mortality in the follow-up among younger versus older patients (> 75 years).

RESULTS Among 316 patients with AMI treated with PA in this period, 48 patients (15%) were aged > 75 years. Compared to <75 years (268 patients) the elderly had a higher prevalence of hypertension (91.7% vs 59.3%; p < 0.05), less history of smoking (16.7% vs 55.2%; p 50%, 37.5% vs 46.5%; p = 0.2). There were differences, however, as to the culprit artery and the number of diseased vessels: In the elderly the culprit artery was mainly the right coronary artery (54.2% vs 15.3%; p 2 vessels disease (70.8% vs 52.6%; p < 0.05). Cardiovascular mortality (CV) per year was higher in the elderly (16.7% vs 6%, p = 0.01). In the post-AP analysis there was no difference in the final epicardial flow (TIMI 3 flow 70.8% vs 78.4%; p = 0.16), however, was a worse MR measured by a blush 3 of 60.4% vs 79.1% p < 0.05; Final TIMI frame count (CTFC) 32.3 +/- 11 vs. 23.9 +/- 7 p <0.05 and less successful reperfusion (cTIMI 75 (OR = 7.2 CI 3.3-16, p <0.001), pre-dilatation (OR = 2.8 CI 1.6-4.9, p <0.001) and thrombus aspiration (OR = 2.95 CI 1.74-5.0 p <0.001).

CONCLUSION Microvascular reperfusion post PA is worse in elderly (exacerbated during the pre-dilatation and aspiration of thrombus in the culprit vessel) despite having a similar SYNTAX score and final epicardial flow. This suggests caution in deciding complete revascularization (multivessel) during an AP in elderly patients and invites develop new treatment strategies of MR in this risk group.

CRT-200.49

Hypoxic Liver Injury Diagnosed in the Emergency Room Predicts In-Hospital Death in Patients With Acute ST-segment Elevation Myocardial Infarction

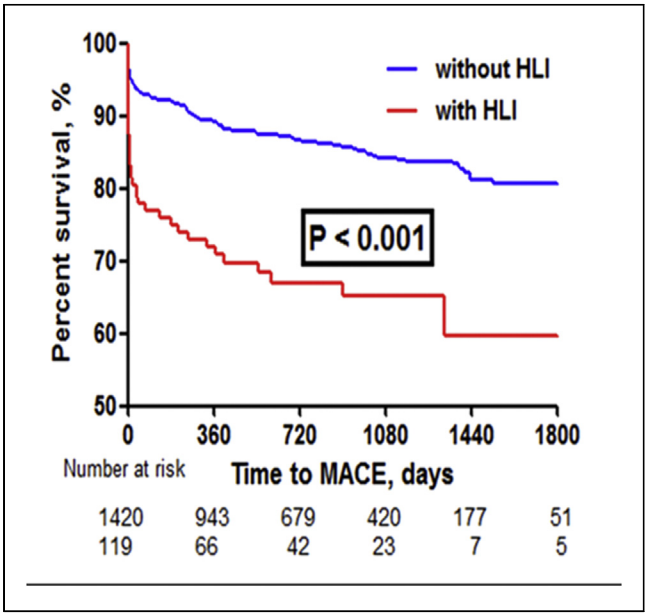
Jon Suh,[1] Sang-Ho Park,[2] Ho-Jun Jang,[3] Tae-Hoon Kim,[3] Sung Woo Kwon,[4] Sang-Don Park,[4] Woong Chol Kang,[5] Jeonggeun Moon,[5] Seung-Woon Rha[6]
[1]SoonChunHyang University Bucheon Hospital, Bucheon, Korea, Republic of; [2]SoonChunHyang University Cheonan Hospital, Cheonan, Korea, Republic of; [3]Sejong General Hospital, Bucheon, Korea, Republic of; [4]Inha University Hospital, Incheon, Korea, Republic of; [5]Gacheon University Gil Medical Center, Incheon, Korea, Republic of; [6]Korea University Guro Hospital, Seoul, Korea, Republic of

BACKGROUND Elevated serum aspartate and alanine aminotransferase (AST & ALT) are often observed in patients with ST-segment elevation myocardial infarction (STEMI).

METHODS From 2007 to 2014, a total of 1540 consecutive patients (mean age 61±13 years old) with STEMI underwent primary PCI were analyzed retrospectively. Hypoxic liver injury (HLI) was defined as ≥ 2-fold increase of serum ALT above upper normal limit at the time of presentation. Primary endpoint was in-hospital death.

RESULTS Of all patients, the HLI was noted in 7.7% patients. Compared to patients without HLI, the patients with HLI were younger (58±14 vs. 61±13 years, p=0.043), lower blood pressure (115±34 vs. 125±30 mm Hg, p=0.006), and had lower ejection fraction (43±15 vs. 48±17%, p=0.002). A total of 89 in-hospital death (5.8%) were occurred. Compared to patients without in-hospital death, those patients were older (69±11 vs. 60±13 years old, p<0.001), had higher ALT (65±69 vs. 36±40 IU/L, p<0.001) at the time of presentation and had lower left ventricular ejection fraction (49±12 vs. 27±19, p<0.001). The proximal LAD or LM lesion was not associated with hypoxic liver injury (p=0.835), but proximal RCA lesion was associated with hypoxic liver injury (p=0.002). The proximal RCA lesion was not associated with in-hospital death (p=0.910), but the HLI at the presentation was associated with high in-hospital death (p <0.001) and was an independent predictor of in-hospital death (HR 5.69, CI 3.12-10.38, p<0.001) after adjusted by age, diabetes, sex and shock.

CONCLUSION The HLI is an independent predictor of in-hospital death in patients with STEMI underwent primary PCI.



CRT-200.50

Efficacy of Embolic Protection Device During Saphenous Vein Graft Intervention - Systematic Review and Meta-analysis

Abhilash Akinapelli, Muhammad S. Azzouz, Michael D. White, Michael Del Core
Creighton University Medical Center, Omaha, NE

BACKGROUND Embolic protection devices (EPD) have been shown to be effective in reducing major adverse cardiovascular events (MACE) after saphenous vein graft (SVG) intervention and recommended by current guidelines. However, the necessity of the EDPs have been questioned in recent retrospective studies. Due to this equipoise, we performed systematic review and meta-analysis of studies evaluating the efficacy of EDPs.

METHODS PubMed and Cochrane databases were queried electronically to identify studies evaluating the efficacy of EPDs during SVG intervention. Analysis was performed following the PRISMA guidelines using random effects model.

RESULTS A total of 12 (3 randomized, 9 observational) studies with 72,883 (EPD group=15999, Control=56,884) patients met the inclusion criteria. 76% of the patients were male with an average age of 69 years. There was no statistically significant difference between the rate of death (Relative risk [RR] 0.91 with 95% CI 0.77-1.07), myocardial infarction (RR 0.92, CI 0.59-1.43) and no reflow phenomenon (RR 0.77, CI 0.39-1.52). There was a significant lower rate of MACE in EPD group (RR 0.66, CI 0.52-0.85). Sensitivity analysis based on follow up duration did not change the results.

CONCLUSION EPDs during the SVG intervention did not reduce the mortality or recurrent myocardial infarction, but did decrease the