in-hospital events were major adverse cardiac events 1.7% (N=128/7740), death 0.3%, clinically driven target-lesion revascularization 0.1% (N=11/7740). Definite and probable stent thrombosis rate according to ARC criteria occurred in 0.1% (N=15/7740).
Conclusions: This largest real-world experience with the new Resolute Integrity stent platform demonstrated a low in-hospital event rate including a low rate of stent thrombosis. Delivery success was high with the Resolute Integrity stent as the first choice of stent as well as after delivery failure of another stent type.

CRT-9

Long-Term Clinical Outcomes with Use of Intravascular Ultrasound for the Treatment of Coronary Ostial Lesions

Jayendrakumar S. Patel, Jeremiah P. Depta, Yogesh Patel, Shriti K. Masrani, Eric Novak, Alan Zajarias, Howard I. Kurz, John M. Lasala, Richard G. Bach, Jasvindar Singh
Washington University in St. Louis, St Louis, MO

Background: A higher rate of adverse cardiac events is associated with percutaneous coronary intervention (PCI) of ostial lesions compared with non-ostial disease. Adjunctive imaging using intravascular ultrasound (IVUS) during PCI may improve outcomes in patients with ostial disease. We evaluated the long-term outcomes of patients with ostial lesions who underwent PCI with and without the use of IVUS.
Methods: From 7/2002 to 8/2010, we retrospectively identified 225 patients with 233 de novo coronary ostial lesions that underwent PCI with (n = 82) and without (n = 143) IVUS guidance. Ostial lesions included native aorto-ostial (left or right main coronary arteries) or major coronary vessel (left anterior descending, left circumflex, and ramus intermedius arteries) occurring within 3 mm of the coronary ostium. Clinical outcomes [cardiovascular death, all-cause mortality, myocardial infarction (MI), periprocedural MI, target vessel revascularization (TVR), or target lesion revascularization (TLR)] were compared between patients with and without the use of IVUS using univariate and propensity score adjusted analyses.
Results: The majority of patients presented with acute coronary syndrome (80%) and were followed for a mean of 4.2 ± 2.5 years. The predominant ostial vessel location in both groups was the right coronary artery (37%) followed by the left anterior descending coronary artery (31%). Aorto-ostial lesions (n = 109) comprised 47% of lesions (IVUS: n = 38; no IVUS n = 71), whereas the remaining lesions (53%) involved major coronary vessels (IVUS: n = 46; no IVUS: n = 78). After propensity score adjustment, IVUS use was associated with lower rates of the composite of cardiovascular death, MI, or TLR (HR 0.54, 95% CI 0.29-0.99; p = 0.04), composite MI or TLR (HR 0.39, 95% CI 0.18-0.83; p = 0.01) and MI (HR 0.31, 95% CI 0.11-0.85; p = 0.02) compared with no IVUS. The use of IVUS was also associated with a trend towards a lower rate of TLR (HR 0.42, 95% CI 0.17-1.02; p = 0.06). Stent under expansion was observed in 40% of patients who underwent post-stenting IVUS.
Conclusions: The use of IVUS during PCI of coronary ostial lesions is associated with significantly lower rates of adverse cardiac events.

CRT-10

The Outcome of Patients Undergoing Surgical Mitral Valve Surgery as a Potential Comparator for patients undergoing Percutaneous Mitral Valve Repair

Sa'ar Minha, Xiumei Sun, Ammar Kanda, Louis Bafi, Rebecca Torguson, Paul J Corso, Ron Waksman
MedStar Washington Hospital Center, Washington, DC

Background: Percutaneous mitral valve repair (PMVR) was introduced as an alternative to the standard mitral valve surgery (MVS) for severe mitral regurgitation (MR). However, the ideal patient population to benefit from this procedure is still controversial. This study aimed to identify a potential comparator reference for future percutaneous mitral repair procedures based on patients undergoing mitral valve surgery stratified by risk groups.
Methods: 422 patients undergoing isolated MVS were divided into 3 risk strata as defined by the Society of Thoracic Surgeons (STS) score as follows: STS <3 (Low; n=350), STS 3 to <6(Intermediate; n=36) and STS ≥6 (High; n=36). The in-hospital and 30-day clinical outcomes were compared.
Results: The average age trended higher as the STS increased (p <0.05). The incidence of female sex, diabetes mellitus, hypertension and peripheral artery disease trended higher with an increase in the STS score. (Table) The 30-day mortality and stroke rates in the low-, intermediate- and high-risk groups were (0.9%, 11.1% and 13.4%; p <0.001 and 0.9%, 8.3% and 5.6%; p <0.05, respectively).
Conclusions: In a tertiary center, isolated MVS are generally performed in patients with low STS scores. Patients with a STS score >6 are at high risk for mortality and should be subjected to a PMVR. The STS score should be used as a comparator tool to evaluate the performance of PMVR for patients with severe MR.

Baseline Characteristics

Variable	STS<3 (n=350)	3≤STS<6 (n=36)	STS≥6 (n=36)	P value
Age (years±SD)	54.7±12.2	66.3±16.3	70.9±10.5	<0.05
Average STS score±SD	0.8±0.7	4±0.8	11.9±6.7	<0.05
Female	180 (51.4%)	28 (77.8%)	32 (88.9%)	0.05
Diabetes Mellitus	140 (40.0%)	23 (63.9%)	26 (72.0%)	<0.05
Hypertension	26 (7.4%)	12 (33.3%)	12 (33.3%)	<0.05
%Mitral Valve Replacement	69 (19.7%)	21 (58.3%)	24 (66.7%)	<0.05

Outcome at 30 days

Variable	Observed	Predicted by STS score	Observed	Predicted by STS score	Observed	Predicted by STS score	p
All-cause-mortality	3 (0.9%)	0.8%	4 (11.1%)	4%	5 (13.4%)	11.6%	<0.05
Stroke rate	3 (0.9%)	1±0.5%	3 (8.3%)	4.1%	2 (5.6%)	3.3%	<0.05
Renal-failure	1 (0.3%)	2.1%	3 (8.3%)	10%	7 (19.4%)	17.3%	<0.05
Length of stay (days)	6.4±7.1	4.7±3.5	15.5±11.4	17±5.8	20.1±23.4	32.8±14.5	<0.001
Post Operative Atrial-fibrillation	95 (27.1%)		19 (52.8%)		9 (25%)		0.005
Total Packed RBC transfused (ml.±SD)	392.3± 963.6		1221.4± 1239.3		1596.2± 1642		<0.001

CORONARY

Acute Coronary Syndrome

CRT-11

The Use Of Intra Aortic Balloon Pump In A Real World Setting: A Comparison Between The Survivors And Non Survivors From Acute Coronary Syndrome Patients Treated With IABP. The Jakarta Acute Coronary Syndrome Registry

Surya Dharma,[1] Isman Firdaus,[1] Dafsah A Juzar,[1] Alexander J Wardeh,[2] J Wouter Jukema[3]
[1]*National Cardiovascular Center Harapan Kita, Jakarta, Indonesia, Jakarta Barat, Indonesia* [2]*Department of Cardiology, M.C Haaglanden, The Hague, Netherlands*
[3]*Department of Cardiology, Leiden University Medical Center, Leiden, Netherlands*

Background: Real world data of acute coronary syndrome (ACS) patients who received intraaortic balloon pump (IABP) remains limited. Therefore, we evaluate the characteristics of ACS patients who received IABP support from a real world ACS registry.

Methods and Results: Patients with ACS (N=121) receiving IABP support were enrolled. Survivors and non survivors were compared at 30-days.

Mortality rate was 47%. The survivors (N=64) had a higher proportion of non-cardiogenic shock (CS) (p=<0.001), more IABP usage as back-up for a revascularization procedure (p=0.002), and fewer history of resuscitation (p=0.043) and mechanical ventilator support (p=<0.001). Compared to survivors, the non survivors had significantly higher leucocyte level (p=0.033), higher creatinine level (p<0.001), higher blood sugar on admission (p=0.001), higher serial CKMB level (p=0.002) and higher uric acid level (p<0.001), but significantly lower left and right ventricular function (p=0.014 and p=0.003, respectively). At 30 days, non-ST elevation (STE) ACS patients had higher cumulative survival than STEMI patients (log rank, p< 0.001) and non CS non STE-ACS patients showed the highest cumulative survival (p< 0.001).

By multivariable analysis, heart rate ≥100 x/minute prior to IABP insertion was the strongest predictor of 30-days mortality (Hazard Ratio 5.66; 95% CI 1.47 - 21.70; p= 0.011).

Conclusion: In ACS patients presenting with cardiogenic shock, resuscitated or need for mechanical ventilation, the short term mortality remains high, despite the use of IABP. IABP appears to be favourable in non cardiogenic shock ACS patients especially non STE-ACS. A heart rate of ≥ 100 x/minute prior to IABP insertion was the strongest predictor of 30-days mortality.

CRT-12

The Metabolic Syndrome is Highly Prevalent in Young Patients wit Acute Myocardial Infarction

G. Andres Cortes, NIrav Desai, Rad Nazila, David M Shavelle, Anilkumar Mehra, Michael A Gaglia, Ray V Matthews, Leonardo Clavijo
University of Southern California, Los Angeles, CA

Background: Recent studies in large worldwide populations demonstrate that the metabolic syndrome (MS) increases the risk of acute myocardial infarction (AMI) without gender, ethnic or regional variations. The risk of AMI associated with MS appears no greater than the risk conferred by its individual components.

Objective: The goal of the study is to investigate the prevalence of metabolic syndrome in young patients with acute myocardial infarction (AMI) treated with percutaneous coronary intervention (PCI) and to compare the ATP III individual components of MS in young versus old patients.

Method: A retrospective analysis of the University of Southern California interventional cardiology database was performed to identify patients with AMI (STEMI and NSTEMI, n=779) treated with PCI between January 2008 and June 2011. Two groups were generated according to the patient's age: young (≤45 years of age, n=81) and old (>45 years of age, n=698). Patients with MS were identified by the presence of at least 3 of the ATP III criteria and components of the MS were separately compared by age.

Results: The MS was more prevalent in young patients with AMI (60.5% vs. 44.8%, p=0.02). Older patients were found to have higher rates of Hypertension (40.7% vs. 64.6%, p<0.001). Triglyceride levels were higher in younger patients (212mg/dl vs. 153.4mg/dl, p-value=0.014), while HDL levels (38.18mg/dl vs. 40.18mg/dl, p=0.22) and obesity rates (BMI < 30kg/m2, 25.92% vs. 26.5%, p=0.97) were similar between the groups. Single vessel CAD was more common in younger with MS patients (44.6% vs. 71.7%, p<0.001), as well as total occlusion of the infarct related artery (39.7% vs. 19.1%, p=0.0003).

Conclusions: The MS is highly prevalent in young patients with AMI. Younger patients compared to older patients with AMI treated with PCI have higher triglyceride levels, less hypertension, are more likely to have single vessel CAD and present with a totally occluded vessel.

CRT-13

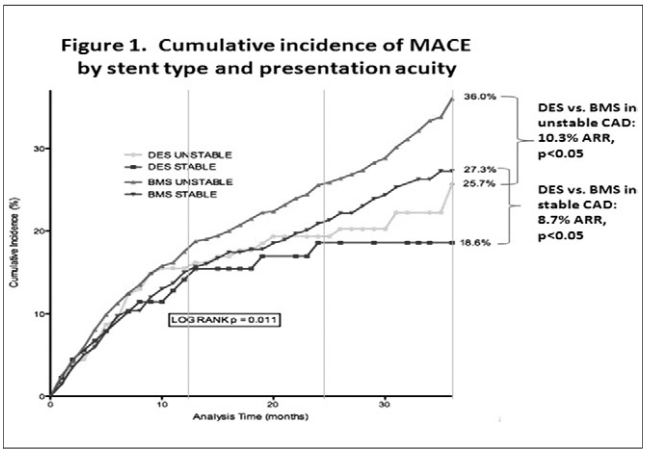
Long-term Safety And Efficacy Of Drug-eluting Stents (DES) Versus Bare Metal Stents (BMS) in Public Health System Patients Stratified By Presentation Acuity At The Time Of Percutaneous Coronary Intervention (PCI)

Andrew Appis,[1] Steve Attanasio,[1] Ali Mithani,[1] Emily Guhl,[2] Sandeep Nathan[2]
[1]Rush University Medical Center, Chicago, IL; [2]University of Chicago Medicine, Chicago, IL

Background: The main benefit of DES vs. BMS in PCI is reduced revascularization. Recent data also suggest reduced major adverse cardiac events (MACE) with DES used in the context of MI yet many patients (pts), especially the uninsured do not receive DES. We evaluated BMS vs. DES in a public health system (PHS) population with uniform access to healthcare and stratified by presentation acuity.

Methods: 2,000 pts undergoing PCI at a PHS hospital were analyzed as an open cohort. Pts were included if complete data were available and uniform access to healthcare was provided at the same PHS. Pts were analyzed by DES vs. BMS, stratified by stable vs. unstable (ACS, MI, shock) clinical presentation and followed for MACE (death, MI, urgent TVR).

Results: 1,702 pts (57.2 ± 10.2 yrs, 31.8% female, 45.9% AA, 22.5% White) underwent PCI for STEMI (19.2%), NSTEMI (28.0%), unstable angina (24.7%) or stable angina (18.9%). The majority (1,402, 82.4%) received BMS. Clinical follow-up was obtained in 85.1% of pts (n=1702, mean 2.5y ± 1.9 yrs). MACE at 3 years was highest in unstable/BMS pts and lowest in stable/DES pts (Fig. 1). Notably the difference between DES and BMS in the unstable cohort was driven by mortality reduction.



Conclusions: DES confers a MACE and likely mortality advantage over BMS, especially in unstable pts. DES was utilized in the minority of pts in this cohort, likely reflecting a significant selection bias. Additional multivariate analyses are currently underway to evaluate the true magnitude and mechanisms of benefit.

Acute Myocardial Infarction

CRT-14

Abbreviated Duration Eptifibatide In St Elevation Myocardial Infarction - Outcomes And Predictors Of Complications

Farrukh Hussain, Seeger Shen, Kerrett Wallace, Ali Bagherli, Roger K Philipp, James W Tam, Davinder S Jassal
St. Boniface General Hospital, Winnipeg, MB, Canada

Background: Previous literature has demonstrated the safety of abbreviated GP IIbIIIa infusion in elective PCI. There is no data to date on the safety of abbreviated infusion of GPIIbIIIa inhibition in the setting of primary PCI for STEMI.

Methods and Results: A retrospective cohort of STEMI patients undergoing primary PCI from June 2009 - June 2011 was analyzed. Detailed demographic, intervention and complication data was collected. A logistic regression model was utilized to identify univariate and multivariate predictors of a pre-specified primary combined endpoint of death/vascular complication/transfusion/stent thrombosis. 66 patients with a mean age of 61 ± 13 years (27% female, 26% diabetic) were identified. Six patients had cardiogenic shock on admission (9%). Symptom onset to device time was 312±318 min and lab to device time was 19±10 min. There were 6 patients (9%) with a pre lab cardiac arrest. Mean LVEF was 53±12 % and peak CK was 1991±2130U. Successful PCI (TIMI 3 flow and residual stenosis ≤ 20%) was achieved in 64 (97%). Thrombectomy was performed in 45 (68%) patients. Stents were deployed in 65 (98%) with 1.6±0.5 stents (mean length 31±19) mm delivered to a mean of 1.1±0.4 lesions. Mean duration of