

pressure NC balloon. Angiographic success was determined by visual assessment and was confirmed by change in minimal stent cross-sectional area (MSA) by intravascular ultrasound (IVUS); or by change in minimal lumen diameter (MLD) by quantitative coronary angiography (QCA).

RESULTS Baseline characteristics and procedural details are summarized (Table). ELCA was performed with highest fluency and repetition rates, 80 mJ/mm² and 80 Hz. Post-ELCA, there was a 63% decrease in luminal stenosis, a 62.5% increase in MLD and the MSA increased by 45%. Successful laser-assisted stent dilatation was achieved in all cases. There were no procedural-related complications. There were no post-procedural complications such as myocardial infarction (MI), or stent thrombosis or in-hospital death.

CONCLUSION In underexpanded stented lesions that are resistant to high pressure balloon expansion, the use of ELCA offers an effective and safe tool to modify the surrounding vessel wall and allow full stent expansion. ELCA should be considered for acute and chronic underexpanded stents.

RESULTS A total of 57 patients were included in our registry. Mean age was 72.9 years ± 9.9 years. Diabetes and chronic kidney disease were seen in 57.9% and 33.3% of patients, respectively. Fifteen patients (26.3%) presented with unstable angina, 22 patients (38.6%) with non-ST-elevation myocardial infarction, 2 patients (3.5%) with ST-elevation myocardial infarction, and 7 patients (12.3%) with cardiogenic shock. The mean ejection fraction was 37.1 ± 15%. Fifty-four patients (94.7%) had evidence of multivessel disease and 38 patients (67%) underwent rotational atherectomy with intra-aortic balloon pump assistance. Angiographic success, defined by residual stenosis of <20% and presence of TIMI 3 flow, was obtained in all patients. The mean number of implanted drug-eluting stents was 1.9 ± 0.7 and bare metal stents was 1.3 ± 0.5 per patient. Two patients (3.5%) died during the index hospitalization. In-hospital morbidity defined by acute renal failure, bleeding and vascular complications and recurrent chest pain with ischemic changes occurred in 8 patients (14%). Repeat PCI was performed in 4 patients (7%).

CONCLUSION Despite technical challenges, rotational atherectomy of left main can be completed with a high success rates in patients with low in-hospital mortality and morbidity.

Table: Baseline characteristics and procedural details:-

Age (in years)	66.7±9
Left ventricular ejection fraction(%)	51±12
Culprit coronary vessel(%)	
LAD	12.5
LCX	37.5
RCA	37.5
Saphenous graft	12.5
Presentation	
Acute stent under-expansion for denovo lesion, number (%)	2(25)
ISR due to under-expanded stent, number (%)	6(75)
Use of Excimer Laser, 0.9 mm(%)	87.5
Use of Excimer Laser, 1.4 mm (%)	12.5
Contrast medium during ELCA (%)	50
Saline medium during ELCA (%)	50
Reference diameter by QCA(mm)	
Pre ELCA	2.2±0.8
Post ELCA	2.9±0.3
Minimal Lumen Diameter(MLD) (mm)	
Pre ELCA	0.8±0.7
Post ELCA	2.1±0.4
Luminal stenosis (%)	
Pre ELCA	69.7±22
Post ELCA	24.6±15
Minimum stent cross section area (MSA) (mm ²)	
Pre ELCA	2.5±0.5
Post ELCA	4.8±1.5

	Left Main and Rotablator (n=57)
Age	72.9±9.9
Male	37 (64.9)
Smoking/Current	24 (42.1)
Diabetes Mellitus	33 (57.9)
Hypertension	51 (89.5)
Dyslipidemia	30 (52.6)
Chronic Kidney Disease	19 (33.3)
Prior CABG	20 (35.1)
Prior MI	17 (29.8)
Prior PCI	15 (26.3)
History of CVA	9 (15.8)
PVD	8 (14.0)
Cardiogenic Shock	7 (12.3)
Ejection fraction, %	37.1±15.5
STEMI	2 (3.5)
NSTEMI	22 (38.6)
Stable Angina	11 (19.3)
Unstable Angina	15 (26.3)
IABP	39 (68.4)
In-hospital mortality	2 (3.5)
In-hospital morbidity	8 (14.0)
Stroke	0
Repeated PCI	4 (7.0)

LEFT MAIN INTERVENTION

CRT-100.50

Outcomes Of Patients With Left Main Disease Who Underwent Rotational Atherectomy

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BACKGROUND Significant coronary calcification is a challenge for percutaneous coronary intervention (PCI). Rotational atherectomy is useful for plaque modification prior to stent delivery. In the present study, we report our experience with left main disease and rotational atherectomy.

METHODS From January 2008 to January 2017, all patients who underwent left main stenting with rotational atherectomy were evaluated. Clinical characteristics and follow-up outcomes are reported.

CRT-100.51

Clinical Outcome of Left Main Stem (LMS) Percutaneous Coronary Intervention (PCI) in a Large Non-surgical UK Center: A 5-Year Clinical Experience

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BACKGROUND LMS coronary disease is associated with high morbidity and mortality. CABG has traditionally been the standard treatment. PCI is increasingly regarded as a viable alternative with comparable outcome and safety profile in select groups. We evaluated the outcomes of unprotected LMS PCI in a large UK non-surgical centre.

METHODS Data on all LMS PCI procedures between 2011-2016, excluding patients with previous CABG surgery, was collected from the local BCIS database and electronic patient records. Periprocedural and 1-year MACE [all-cause mortality, MI, stroke and target vessel revascularization (TVR)] were recorded.

RESULTS Two hundred forty-nine patients had LMS intervention during the study period. All non-emergency cases were discussed by the heart team. Seventy-seven percent (n=192) were male. Mean age 70 ± 12 years. Thirty-one percent of cases were elective, 44% NSTEMI, 25% STEMI. Seventy-seven percent of procedures were performed trans-radially. Anatomical distribution: 19% ostial, 31% shaft and 50% bifurcation. Additional intra-coronary imaging was used in 55%. Ninety-two percent of patients had DES. Twenty-two percent of patients had severe LV impairment pre-procedure and 13% were in cardiogenic shock on presentation. 4.8% had acute LMS occlusion and 0.4% had chronic occlusion. Rotablation was used in 16%. Thirty-five patients (14%) required IABP support. PCI techniques included: Culotte 19%, 2-stent crush in 2%, T-stenting in 11% and single stent in 68%. Seventy-three percent had PCI on additional lesions at the same setting. Periprocedural complications included: coronary perforation in 1.2%, side branch occlusion in 3.2%, heart block requiring pacing in 0.8%, and cardiogenic shock induced by procedure in 2.4%. 98.4% of procedures were successful. No patients required emergency transfer for CABG. There were 25 (10%) in-hospital deaths. Sixty-eight percent of in-hospital deaths occurred in patients undergoing primary PCI for STEMI. Seventy-two percent of patients who died were in cardiogenic shock at presentation. Twelve-month MACE was 19.6%. Death occurred in 14%, MI in 2.4%, TVR in 2.4% and stroke in 0.8% (ischemic etiology).

CONCLUSION These results highlight the safety and efficacy of unprotected LMS PCI in a non-surgical centre.

MULTIVESSEL DISEASE

CRT-100.53

Identification Of Candidates For Coronary Artery Bypass Grafting In Patients With Multivessel Disease Admitted With STEMI: A Single-center Descriptive Study



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BACKGROUND The management of multivessel coronary artery disease (MVD) in STEMI setting is under debate. Complete surgical revascularization with CABG is not usually considered due to the need for emergency revascularization of the culprit vessel, which is performed faster percutaneously. Many patients who are good candidates for CABG initially are not considered due to high risk of bleeding with DAPT and reduction of the anatomical complexity after the primary PCI. The use of short half-life antithrombotic therapy, i.e., GP IIb/IIIa inhibitors or cangrelor, could make possible the realization of CABG during hospitalization in selected patients after a provisional percutaneous revascularization without stent implantation of the culprit vessel. We sought to identify the percentage of patients with MVD in STEMI setting who could have been candidates for CABG.

METHODS We evaluated all patients admitted with STEMI in a tertiary center from April 2014 to October 2016. Those patients with TIMI flow < 3 in the culprit vessel, additional stenosis > 50% in an epicardial vessel or sidebranch > 2 mm were selected. We analyzed epidemiological variables, surgical risk scores and Syntax-I and Syntax-II scores. All patients selected were discussed in a heart-team post hoc where an interventional cardiologist (RRO) and a cardiothoracic surgeon (JLM) agreed on the best management.

RESULTS Three hundred seventy-nine patients were admitted due to STEMI in the aforementioned period. Seventy-two (19.0%) accomplished MVD criteria (65 +/- 13 years; 81.9% male; 29.2% diabetics; Euroscore 9.9 +/- 7.5; Euroscore-II 2.6 +/- 1.9). Syntax-I score was 19 +/- 13 points and Syntax-II score recommended CABG in 12 patients (16.7%) and heart-team discussion in 60 (83.3%). Post hoc heart-team discussion concluded that 21 (29.2%) patients could have been good candidates for complete revascularization with CABG.

CONCLUSIONS After a post hoc heart-team discussion, around 30% of patients admitted with STEMI and MVD could have been candidates for CABG. A provisional percutaneous revascularization without stent implantation and the use of short half-life antithrombotic therapy could make possible the realization of CABG during hospitalization in selected patients.

CRT-100.54

Culpritvessel-only Versus Multi-vessel Percutaneous Coronary Intervention In Patients With Cardiogenic shock complicating ST-segment-elevation Myocardial Infarction outcomes In Short Term Mortality: An Updated Meta-analysis



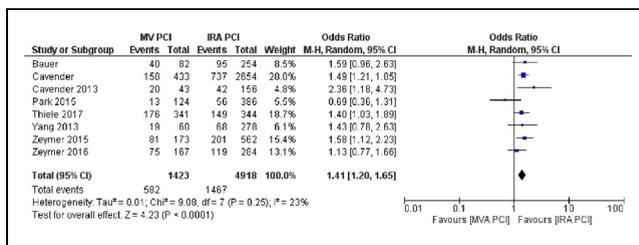
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BACKGROUND In patients who have acute myocardial infarction with cardiogenic shock, early revascularization of the culprit artery by means of percutaneous coronary intervention (PCI) improves outcomes. However, the majority of patients with cardiogenic shock have multi-vessel disease, and whether PCI should be performed immediately for stenosis in non-culprit arteries is controversial. The optimal revascularization strategy in patients with multi-vessel disease presenting with cardiogenic shock complicating ST-segment-elevation myocardial infarction remains unknown.

METHODS AND RESULTS Databases were searched from 1999 to November 2017. Studies comparing immediate/single-stage multi-vessel percutaneous coronary intervention (MV-PCI) versus culprit vessel-only PCI (CO-PCI) in patients with multi-vessel disease, ST-segment-elevation myocardial infarction, and cardiogenic shock were included. Primary end point was short-term (in-hospital or 30-day) mortality. The meta-analysis included 8 studies and 6341 patients (1423 MV-PCI and 4918 CO-PCI). There was a significant difference in short-term mortality with MV-PCI versus CO-PCI (odds ratio [OR], 1.41; 95% confidence interval [CI], 1.20-1.65; P<0.05).

CONCLUSIONS This updated meta-analysis, which includes the multicenter randomized control trial CULPRIT SHOCK, suggests that in patients with cardiogenic shock complicating ST-segment-elevation myocardial infarction, there is a significant benefit in short-term mortality with CO-PCI compared with MV-PCI. Given the limitations of observational data, more randomized trials are needed to validate these findings.



OTHER

CRT-100.67

The Correlation Between The Extent Of Mitral Annulus Calcification And The Severity Of Coronary Artery Disease



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