**METHODS** A total of 100 patients were assigned to perform coronary angiogram or intervention through distal trans-radial access in the anatomical snuffbox from October 2017 to March 2018. All of them had normal pulse in their distal radial artery. Both right and left distal radial artery were used and demographic features &complications were recorded during a hospital stay. Statistical analysis was done through SPSS version 19.

**RESULTS** The overall feasibility was 98%, greater than expected in our early clinical experience, with 98 successful accesses out of 100 patients. There was a failure to access of distal radial artery in two cases which may be due to the hypoplastic/vasospastic distal radial artery. Despite all, it can be said that it was very much safe as there was no hand ischemia, hematoma, numbness or proximal radial arterial occlusion.

**CONCLUSION** Distal radial artery access technique is very much feasible and safe for coronary angiography and interventions. This route helps repeated trans-radial intervention by preventing radial artery occlusion rate.

# TCTAP A-023

# Large-diameter Coronary Artery Stenting



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**BACKGROUND** Percutaneous coronary intervention (PCI) includes transluminal balloon angioplasty (TBA) with or without stent implantation.

In most cases the stenting of the coronary arteries is the preferred endovascular method of revascularization in patients with coronary heart disease (CHD). To date, the data on the optimal choice of stent for coronary arteries of large diameter (> 5.0 mm) remain controversial, because the diameters of the arteries are close to the maximum size of coronary stents which exist at present. The problem of malposition of stents can lead to such complications as stent thrombosis in the intra- and postoperative periods especially in patients with ACS.

**METHODS** We have experience in the endovascular treatment of 4 patients with ACS with a diameter of coronary arteries of more than 6.0 mm over a period from 2016 to 2018.

The first case was the patient with CABS with limiting stenosis of an aortocoronary bypass with the diameter of more than 6.0 mm, so we used a self-expanding stent (WALLSTENT) sized 7 x 40 mm and carried out a subsequent post-dilatation by the 5 x 20 mm balloon.

The coronary angiography of the next patient with STEMI showed acute occlusion of RCA. The diameter of the artery was 9.0 mm. After predilation, a 9 x 40 mm self-expanding stent (Precise Pro RX) was implanted into the artery. A satisfactory result was obtained, and another life was saved.

The third patient was also diagnosed with acute occlusion of RCA with a diameter of 7 mm; there was the blood flow recovery after clot aspiration and balloon predilation, but soon after 5 minutes the thrombosis of this artery reappeared. The patient was implanted with a self-expanding stent (SMART Control) with a diameter of 9 x 40 mm on a 0.35 wire with a satisfactory result.

The fourth patient with a RCA diameter of 7 mm was diagnosed with limiting stenosis and a self-expanding stent (WALLSTENT) sized 7 x 50 mm was implanted. The result was good.







**RESULTS** Patients that were treated are currently well. During the observation period, they did not have any cardiovascular events. Also, there was no clinical relapse.

**CONCLUSION** Summing up, we can say that the use of stents that are not intended for the coronary arteries is justified for saving the lives of patients with large-diameter coronary arteries. The long-term period of such treatment requires additional study.

# **TCTAP A-024**

# TOPIC: Double Vessel Acute Myocardial Infarction Showing Simultaneous Total Occlusion of Two Coronaries: A Single Centre Case Series of 10 Patients



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**BACKGROUND** Simultaneous thrombosis of more than one coronary artery is an uncommon angiographic finding in acute ST-segment elevation myocardial infarction (STEMI) and usually leads to cardiogenic shock or even sudden cardiac death. Management of this complicated condition is as good as treating a case of acute Left main were timely revascularization plays a major role.

**METHODS** This was an observational prospective study which enrolled all consecutive patients with ECG showing ST Elevation in two arterial territories and angiography confirming thrombotic occlusion of two coronary arteries. A total of 10 cases were enrolled in our study during the period of six months (May to October 2018). Mean age of patients was  $56 \pm 4$ . Eight were Male and two Female. Among risk factors, 8 were smokers, 6 Hypertensive, 6 Diabetic and 4 with high lipids. ECG showed ST Elevation in precordial leads in all cases, inferior leads in eight cases and lateral lead in two cases. Six patients presented in Killip class II, two in class III and two in class IV. Pressure support with Noradrenaline and Dopamine was used in all cases.

**RESULTS** RESULT: Left Anterior descending involvement in nine cases, Right coronary in seven and Left Circumflex in four. Two patient had VT during PCI which was cardioverted, slow flow was noted in three patient which was managed with nicorandil and GP2B/3A inhibitors. Thrombus aspiration was done in two patients. TIMI III flow was restored in all patients with no in-hospital mortality.

**CONCLUSION** Acute STEMI caused by simultaneous multi-vessel coronary occlusion is as good as Left main equivalent, it needs aggressive immediate revascularization owing to the higher mortality rate and complicated hospitalization course with arrhythmia, heart failure, and cardiogenic shock. Though there are no fixed guidelines for these type of cases as these cases are rare. Time plays a very crucial role hence we do not recommend to reperfuse any particular vessel first rather whichever vessel is easy to open should be attempted first in order to save jeopardized myocardium.

#### **TCTAP A-025**

# Impact of DCB Angioplasty for Very Late Stent Thrombosis

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**BACKGROUND** There was no data clinical outcome of drug-coated balloon (DCB) angioplasty for Very late stent thrombosis (VLST) in Japan. The aim of our study was to investigate the efficacy of DCB for VLST.

**METHODS** From April 2014 to December 2017, we enrolled 12 VLST patients performed PCI using DCB. Acute and mid-term MACE, the

rate of binary restenosis and TLR at 9-month follow-up were evaluated.

**RESULTS** Of these patients, the mean age was  $66 \pm 12$  years, 75% (9/12) was male. DES VLST cases were 5, and BMS VLST cases were7. Hypertensive patients were 66.7% (8/12), Dyslipidemia were 67% (8/12). Diabetes were 41.7% (5/12), prior and current smoker were 58.3% (7/12). The other in-hospital MACE was not seen. The 9-month clinical follow-up rate was 100%. MACE was seen in 0 case. Non-cardiac death was seen in 0 patient. At 9-month angiographic follow-up (follow-up rate: 75%), binary restenosis rate was 22.2% (2/9) and TLR was 0% (0/9). f/u OCT and OFDI were performed by 77.8% (7/9). In DESVLST cases, OCT and OFDI were wall inter-strut hollow (MIH) in-stent site (100%, 3/3). However, MIH did not observed in BMS VLST cases (0%, 0/4).

**CONCLUSION** 9-month clinical outcomes of DCB angioplasty for VLST were acceptable. However, MIH indicates localized hypersensitivity reaction of the arterial wall. DCB for DES VLST site may cause further progression of inflammation.

#### **TCTAP A-026**

# Epidemiological and Clinical Characteristics in Young Patients with Acute Coronary Syndrome

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**BACKGROUND** Although acute coronary syndrome (ACS) is an uncommon entity in young patients, it constitutes an important problem due to the devastating effects of the disease on the more active life-style of young patients. Currently, there are no guidelines regarding the prevention of ACS in young patients.

**METHODS** We undertook a retrospective study of ACS patients between 2014 and 2017. Epidemiological data, clinical findings, and short-term outcomes were evaluated between young ACS patients ( $\leq$  50 years old) and elderly ACS patients (> 50 years old).

**RESULTS** Of a total of 361 ACS patients, 37 patients were young ACS patients (10.2%). Young ACS patients showed a higher prevalence of males (94.6% vs. 73.8%, p < 0.001), current smokers (70.3% vs. 29.9%; p < 0.001), and overweight persons (67.6% vs. 27.8%, p < 0.001). Eicosapentaenoic acid (EPA)/arachidonic acid (AA) ratio was significantly lower in young ACS patients than in elderly ACS patients (0.17 [0.12-0.25] vs. 0.25 [0.18-0.37], p = 0.002). The prevalence of cardiopulmonary arrest and percutaneous cardiopulmonary support use was higher in young ACS patients than in elderly ACS patients (24.3% vs. 8.6%, p = 0.003, 16.2% vs. 3.1%, p < 0.001).

**CONCLUSION** Young ACS patients present with quite different features from that seen in elderly ACS patients. In young ACS patients, smoking, being overweight, and a low EPA/AA ratio were distinctive risk factors, and more serious clinical presentations were observed at the onset of ACS. Modification of these risk factors can be expected to prevent the onset of ACS in the younger population. This hypothesis needs to be investigated by prospective interventional trials in the future.

# **TCTAP A-027**

#### The Benefits of Cardiac Rehabilitation on Clinical Parameters in Patients with Acute Coronary Syndrome



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**BACKGROUND** The effects of exercise-based cardiac rehabilitation (CR) and its association with cardiac mortality reduction have been well evaluated in acute myocardial infarction (AMI). However, it is not well known for which clinical parameters are improved after CR in AMI. We assessed the impact of CR on clinical parameters in patients with acute coronary syndrome (ACS) who had undergone coronary angioplasty.

**METHODS** This study included 505 ACS patients including STsegment elevation myocardial infarction (STEMI) and non-ST segment myocardial infarction (NSTEMI) who underwent successful PCI from July 2015 to March 2018 in Inha University Hospital. CR was performed by aerobic exercise at 70% to 85% of maximal heart rate for 2-3 sessions per week at the department of rehabilitation medicine center. Patients who underwent more than 4 weeks length of CR were defined as CR group. Clinical parameters including hemodynamic,