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Long-Term Impact Of Iatrogenic Dissection Of A Left Main Coronary Artery During Percutaneous Coronary Intervention

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BACKGROUND Iatrogenic dissection (ICAD) of the left main coronary artery (LM) and proximal LAD (p-LAD) during percutaneous coronary intervention (PCI) is a much dreaded complication; however, little is known regarding the long-term clinical outcome of these patients. The aim of the present study was to evaluate the short- and long-term clinical outcome of ICAD involving LM and p-LAD during PCI and to compare it to those of non-LM dissections.

METHODS All consecutive ICAD during PCI were identified using National Heart Lung and Blood Institute diagnostic criteria. The cohort was divided into LM and p-LAD group and all other coronary arteries as non-LM group. Demographic clinical, procedural and follow-up data were collected. These patients were prospectively followed for a 3-year period for the outcomes of major adverse cardiovascular events (MACE) and cardiac death.

RESULTS A total of 1132 ICAD events were identified, of which 27% occurred in the LM group. Lower incidence of LM ICAD was seen during primary PCI (9 vs. 23, p=0.04). Right coronary was the commonest artery in the non-LM group. As a result of the dissection there was one death during the procedure in the non-LM group. Forty-four patients (8 in the LM-P-LAD group) underwent urgent coronary artery bypass grafting. In-hospital outcomes were favorable with only 1 patient developing subacute stent thrombosis in the non LM group and with 1 cardiac death in the non-LM group. In the non-LM group, 4 patients underwent target vessel PCI. There was no significant difference in the rates of MACE or cardiac death between the LM /p-LAD and non-LM group at 30 days, 1, 2 and 3 years.

CONCLUSIONS ICAD involving LM and p-LAD is a rare complication of PCI procedure. Although considered a serious complication of PCI, it does not necessarily portend a worse early or long-term clinical outcome when compared to non-LM dissections.

	Post-procedural In Hospital outcome		30 days outcome		6 month outcome		1 year outcome		3 year outcome	
	MACE	Cardiac Death	MACE	Cardiac death	MACE	Cardiac death	MACE	Cardiac death	MACE	Cardiac death
LM-P-LAD group (n=172)	0	0	0	0	4	1	4	2	6	6
Non LM group (n=960)	2	1	3	5	32	10	38	12	52	35
P-value	0.8	1.0	0.7	1.0	0.5	0.56	0.3	1.0	0.3	0.9

MACE, major adverse cardiovascular events; LM, left main coronary artery; p-LAD, proximal left anterior descending artery

CATEGORIES CORONARY: Complications

KEYWORDS Dissection, Outcomes, Percutaneous coronary intervention

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2-Year Clinical Follow-up of the TRYTON IDE Randomized Trial Comparing a Dedicated Bifurcation Stent to Provisional Stenting in the Treatment of Coronary Bifurcations

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BACKGROUND Recently, the 1-year clinical and 9-month angiographic results of The TRYTON (Prospective, Single Blind, Randomized Controlled Study to Evaluate the Safety & Effectiveness of the Tryton Side Branch Stent Used With DES in Treatment of de Novo Bifurcation Lesions in the Main Branch & Side Branch in Native Coronaries) IDE trial were reported, showing no difference in overall target vessel failure (TVF) using the TRYTON (Tryton Medical Inc., Durham, North Carolina) stent compared to the standard provisional approach. The lack of benefit with the TRYTON dedicated bifurcation stent strategy was predominantly driven by an excess of small peri-procedural myocardial infarctions (MI) in the TRYTON group, especially in smaller side branches (<2.5 mm diameter by visual estimate). A subset analysis of the TRYTON trial examining the outcomes in the larger side branches, indicated possible benefit of TRYTON on both angiographic and clinical outcomes. Therefore, the role of a dedicated bifurcation stent strategy for the treatment of some complex bifurcation lesions remains to be answered. Moreover, the long term clinical outcome of the TRYTON dedicated bare-metal stent is unknown. Here we report the 2-year clinical follow-up of the TRYTON IDE trial, including special attention to the large side branch cohort.

METHODS The TRYTON IDE trial randomly assigned patients with true bifurcation lesions to a main vessel stent plus provisional stenting or the bifurcation stent. The clinical primary endpoint was TVF (cardiac death, target vessel MI, and target vessel revascularization). The primary endpoint and its components will be reported and compared between both strategies.

RESULTS The complete results will be available at the time of the presentation.

CONCLUSIONS The conclusions will be available at the time of the presentation.

CATEGORIES CORONARY: Complex and Higher Risk Procedures for Indicated Patients (CHIP)

KEYWORDS Bifurcation stenting, Complex lesion

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Abstract Withdrawn

TCT-402

Feasibility of Robotic Percutaneous Coronary Intervention for Unprotected Left Main Stenosis in the Presence and Absence of Left Ventricular Hemodynamic Support with Impella

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BACKGROUND Robotic PCI can potentially address the occupational hazards associated with interventional cardiology, addressing both the orthopedic and radiation associated risks. The safety and feasibility of robotically assisted percutaneous coronary intervention (PCI)