



CRT-200.10
Incidence and Clinical Outcome of Stent Fracture Based on 3411 Patients and 5836 Drug-Eluting Stents Analysis Within One-year After Indexed Stenting Procedures

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Stent fracture is associated with in-stent restenosis (ISR), target lesion revascularization (TLR), stent thrombosis, myocardial infarction (MI) and major adverse cardiac event (MACE). However, the incidence of SF using Chinese domestic drug-eluting stent (DES) still remains unclear. In this study, 3411 patients with 5836 DESs and 1-year angiographic follow-up from 1007 patients who underwent percutaneous coronary intervention were studied. SF rate was 16.9% from patient level and 12.5% from stent level, with higher incidence in stainless stent platform (23.0% vs. 12.0% after cobalt-chromium stent, $p < 0.001$), without difference between domestic and international DES. Most SFs were classified by Type I, whereas Type V SF is correlated with clinical events. Of 88 patients with 1-year TLR, repeat DES implantation was performed in 80 patients and balloon angioplasty was performed in the remaining 8 patients. After an 1523 (IQR) days (375~3650 days) follow-up, repeat ISR was detected in 19 (23.8%) of patients, with 6 (7.5%) repeat TLR required. Of 19 repeat deployed DESs, SF occurred in 3 (3.8%) stents. In conclusion, SF is not rare after DES implantation. TLR was required in almost two third SF. Restenting using cobalt chromium DES was associated with acceptable clinical results.

CRT-200.11
Use of Mother-child Guide Catheter Extension (Guideliner) in Complex Transradial Percutaneous Coronary Intervention

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BACKGROUND With advancement in technology, percutaneous coronary interventions (PCI) are increasingly performed on complex coronary lesions via trans-radial approach (TRA). Various techniques have been described to overcome the difficult coronary anatomies. In the present study, we aim to evaluate the indications, procedural outcome and associated complications with GuideLiner use, in treating complex lesion via TRA.

METHODS We collected data from all the patients, in whom the GuideLiner was used to facilitate PCI between April-2011 to December-2014 at the Toronto General Hospital. Demographic and procedural data including indications for the GuideLiner use, procedural outcome and associated complications were collected from the institutional prospective data registry. Quantitative coronary angiography was used to determine the intubation depth of the GuideLiner catheter.

Procedural success was defined as $< 20\%$ stenosis after stent implantation and TIMI-3 flow at the end of procedure. Device success with GuideLiner was defined as ability to deliver balloon or stent to the desired position. The conversion from radial to femoral, if required, was also recorded.

RESULTS During the study period, 6105 PCIs were performed at our institution. Out of these, GuideLiner was used in 307 patients (317 lesions). In our cohort, 82% were male with a mean age of 68.4 ± 11.2 years. Hypertension (74.3%), dyslipidemia (53.7%) and diabetes (39.1%) were commonest cardiovascular risk factors. Prior MI (28%), previous PCI (37.8%) or CABG (24.8%) was noted in our cohort. Majority of lesion were type B2 or C (98%), calcified (86.3%), or the ones with proximal tortuosity (88.6%). Stent delivery (64.2%) was the most common indication for the GuideLiner use. The overall technical success rate of GuideLiner was 88%. The procedural success rate in this cohort was high at 98.7%. Stent dislodgement (0.6%, $n=2$), longitudinal stent deformation (0.3%, $n=1$) and coronary dissection (0.3%, $n=1$) were the complications observed. The conversion to femoral access was required in only 3 patients (1%) in our cohort.

CONCLUSION Use of GuideLiner facilitated successful completion of PCI procedure in majority (88%) of patients with complex lesions via transradial approach.

CRT-200.12
Reducing Intensity and Duration of Compression After Transradial Access Lessens the Radial Artery Occlusion Rate. Results of the Randomized Crasoc I & II Studies

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BACKGROUND Minimizing injury related to the local compression after transradial access (TRA) reduces the radial artery occlusion (RAO) rate. RAO limits future use of this access.

AIM To assess the benefit of reducing both intensity and duration of the compression.

METHODS From 2009 to 2011, Crasoc I randomized 1937 patients into a normal-low intensity (TR Band 13 ± 2 cc of air) versus an ultra-low (10 ± 2 cc) compression group. The same degree of compression was maintained for 4h. Ward nurses were blinded about the final volume of compression used. During 2014, Crasoc II randomized 942 patients into 2 versus 3 hours of compression, using the ultra-low (10 cc) volume. Patients were followed for 24 hours with attention to bleeding or vascular problems. The 24 hours patency was assessed by pulse oximetry of the hand when compressing the ulnar artery. In case of no or doubtful signals, a Doppler exam was performed. 24h RAO defined as negative pulse by oximetry (RAO-Nurse) and by Doppler (RAO-D) was analyzed.

RESULTS All groups were well balanced. Except for re-bleeding (external), vascular problems were equivalent and benign. The combination of reducing the degree and the duration of compression lessens the RAO rate (RAO-Nurse and RAO-D), the 10cc-2h gives a less than 1% of RAO-D (figure). To avoid one RAO, 15 patients need to be treated (RAO-N) with the 10cc-2hrs protocol versus 13cc-4h, at the expense of re bleeding requiring prolonged compression for 5.5%.

Multivariate analysis found following variables of patency: groups 10 cc-4h- $< 3h < 2h$, patient height, GP IIB/IIIA treatment, HTN, Diabetes.