Conclusions: This study shows that, in the era of post-RIVAL trial, the use of TR approach for PCI was significantly increased in patients with acute MI as well as in patients with STEMI.

TCT-417
Abstract Withdrawn

TCT-418
Doppler Control Of Radial Artery After Use Of TR Band Following Coronarography and/or Angioplasty: DRABAND study results

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Background: Radial artery occlusion (RAO) is an infrequent complication of transradial approach catheterization, but its incidence varies from 1 to 10%. One of predictive factors is a non patent hemostasis. The purpose of our study was to evaluate radial patency by Doppler after using a TR Band™ (TERUMO) in real life

Methods: 574 patients were consecutively included in this European multicentric registry with 8 centers. All patients received a vasodilator and heparin < cocktail ≥ and underwent cardiac catheterization using 5F or 6F introducer sheath and catheters. Hemostasis was achieved for all patients with a radial compression device (TR Band™), applied after sheath removal, with the same protocol for set up and removal allowing flow-limiting compression and a short duration, RAO was evaluated by clinical and Doppler with and without ulnar compression at 24 hours.

Results: With a majority of right radial approach, coronary angiography was performed in 62% of cases. 6 Fr was used in 211 patients (37%) and a previous radial approach done in 23% of cases. Complete evaluation at both hands was achieved in 22 patients (23.2 ± 24.4). Any major site complication was observed, only 11.4% of small hematomas without transfusion or surgical repair. Radial pulse was clinical patent in 98.5%. Doppler RAO occurred in 3.8% (n = 22). Univariate statistical analysis identified as significant predictors of RAO: no use of protic sheath (p = 0.0003), no pulse after TR Band™ withdrawal (p < 0.0001) and a procedure performed by a young radialist physician (p = 0.022). RAO was more frequent with large sheath use and after previous radial approach, but not statistically significant.

Conclusions: Because one the most important RAO predictor factors is the maintain of radial patency during hemostatic compression, TR Band™ device with its flow-limiting compression allows to reduce early radial artery occlusion as confirmed by DRABAND study, with only 3.8% incidence. We have also shown importance of quality sheath choice avoiding radial occlusion complication.

TCT-419
Complete Percutaneous Approach For Arterial Access And Closure For Device Deployment In The Transfemoral Transcatheter Aortic Valve Replacement - A Comparison With Surgical Cut-down

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Background: Surgical cut-down for any procedure has been the approach for an arterial access for the past 40 years. With the recent advances in transcatheter aortic valve replacement (TAVR), percutaneous arterial access for device deployment is more common. We compared the outcomes of percutaneous access and closure versus traditional surgical cut-down for arterial access/closure of the device deployment. Immediate success of vascular access/closure, associated complications and clinical outcome were compared.

Methods: A total of 21,822 patients enrolled for about six years in the Korea Working Group on Myocardial Infarction Registry were compared between before and after the publication of the RIVAL trial. Pre-RIVAL group was consisted of 20,155 (96.5%) patients and post-RIVAL group 767 (3.5%) patients.

Results: Compared to Pre-RIVAL group, TR approach was significantly higher in post-RIVAL group (18.2% vs 23.7%; p < 0.0001). Procedural success was not different in pre- and post-RIVAL group (99.0% vs 98.3%) nor was vascular and bleeding complications (0.21% vs 0.1%). However, compared to TF approach, procedure-related complications were significantly lower in TR approach in both pre-RIVAL group (13.3% vs 5.0%; p < 0.0001) and post-RIVAL group (16.0% vs 4.9%; p < 0.0001). In the subgroup of ST-segment elevation MI (STEMI), TR approach was significantly higher in post-RIVAL group (16% vs 22%; p < 0.0001). In the subgroup of elderly patients ≥80 years old, TR approach was not different in pre- and post-RIVAL group (17.9% vs 13.5%; p = 0.285) nor was in the female patients (16.0% vs 19.8%; p = 0.142).

Conclusions: This study shows that, in the era of post-RIVAL trial, the use of TR approach for PCI was significantly increased in patients with acute MI as well as in patients with STEMI.

TCT-420
Major Vascular Complication And Its Management After Complete Percutaneous Arterial Access And Closure In Transfemoral Transcatheter Aortic Valve Replacement

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Background: The complete percutaneous access/closure has been introduced as an alternative approach for surgical cut-down for placement of large caliber sheath in transfemoral (TF) transcatheter aortic valve replacement (TAVR). However, incidence of associated major vascular complication (VC), its anatomic characteristics and management mode remains uncertain.

Methods: Using the pre-closure technique by deployment of two PerClose Proglide devices (Abbott Vascular Inc., Santa Clara, California), 118 patients underwent complete percutaneous approach for placement of either a 22 or 24 Fr sheath for TF TAVR using the first generation Edwards-Sapien valves (23mm or 26mm diameter). Incidence of immediate major VC defined by VARC, its angiographic location and success rate of subsequent endovascular or surgical intervention was assessed.

Results: Major VC occurred in 14.4% of the patients (17 out of 118 cases). Dissection or perforation of iliac artery was the most common form of the major VA (53%; 9 out of 17). Six cases developed major VC at the puncture site in common femoral artery (one perforation and 5 stenoses). Two of these cases also had dissection in the separate site (both at the bifurcation of external and internal iliac artery). All these were successfully treated with peripheral endovascular intervention. Two other cases required surgical intervention. One case with ruptured lower abdominal aorta was treated by both endovascular intervention and surgical repair, and the other that has difficulty of sheath removal underwent emergent iliofemoral bypass surgery. Compared to the patients without major VC, the patients with major VC received more frequent blood transfusion (28% vs. 71%, p = 0.008). However, there was no significant difference in mean length of hospital stay (4.6 ± 6.9 days vs. 4.8 ± 3.7 days) and 30-day mortality (3.0% vs. 5.9% for no major VC vs. Major VA).

Conclusions: Biofemoral artery was the most common site of major VC in TF TAVR with percutaneous access/closure for device access for the first generation Edwards-Sapien valves. The majority of them can be successfully managed by immediate endovascular intervention and supportive therapy without affecting acute clinical outcomes.

TCT-421
Lower periprocedural quality of life in STEMI patients undergoing PCI with femoral access

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Background: Despite improved clinical outcomes with the transradial access in STEMI, the data on health related quality of life (HRQoL) is still limited. The aim was to understand the HRQoL, depending on the selected vascular approach.

Methods: 100 STE-ACS individuals admitted for PCI were randomized to transradial (TR, n = 52) and transfemoral (TF, n = 48) approach. A EQ-5D, visual analog scale (VAS) and MacNew instruments were used to assess the HRQoL.

Results: The baseline HRQoL was indifferent (TF vs. TR). Two hours after PCI the HRQoL improved (VAS: 50.2 vs. 70.1, p < 0.05). The mobility, self-care and pain were impaired in the TF vs. TR (p < 0.01). Over next three days these domains improved and differences equalized between groups. There was no difference of the total HRQoL, on day three as by VAS (72.1 vs.69.0), EQ-5D and MacNew (5.3 vs. 4.5), despite for lower scores in emotional domain in the TF vs. TR (4.18 vs. 5.11, p < 0.05).

Conclusions: The approach of PCI with lower HRQoL, early after PCI and improves within days after the procedure. An impaired emotional status noticed in TF group needs to be studied in larger trials. The TR access should be preferred when patients satisfaction is taken into account.