

regimens except for Nicorandil. There was not much hemodynamic alteration with 200µg Nitroglycerin. The incidence of side effects of Nitroglycerin such as headache was also rare. In general, the combination of Nitroglycerin and Calcium Channel Blocker was better than either Nitroglycerin or Nicorandil in preventing the spasm of radial artery. Verapamil 2.5mg used in combination with Nitroglycerin 200µg is better in preventing radial artery spasm than combination of Diltiazem 5mg and Nitroglycerin 200µg. Rashes and vasovagal phenomenon was seen to occur more commonly with Diltiazem.

Conclusion: The occurrence of radial artery spasm during transradial coronary angiography is prevented by intraarterial injection of Nitroglycerin with or without calcium channel blocker. The best regimen to prevent spasm of radial artery in an ideal patient is the combination of 200µg of Nitroglycerin with 2.5mg of Verapamil. Nicorandil was less effective in preventing radial artery spasm.

TCTAP A-121

Transradial Versus Transfemoral Intervention in ST-segment Elevation Myocardial Infarction Patients Undergoing Primary Percutaneous Coronary Intervention with Drug-eluting Stents

Seung-Woon Rha¹, Byoung Geol Choi¹, Dong Joo Oh¹, Myung Ho Jeong², Sang Sik Jung³, Moo Hyun Kim⁴, Hyoung-Mo Yang⁵, Junghan Yoon⁶, Keum Soo Park⁷, Kyoo Rok Han⁸, Byung Ryul Cho⁹, Kwang Soo Cha¹⁰, Byung Ok Kim¹¹, Min Soo Hyun¹², Won Yong Shin¹³, Hyunmin Choe¹⁴, Jang-Wan Bae¹⁵, Hee Yeol Kim¹⁶

¹Korean University Guro Hospital, Seoul, Korea (Republic of), ²Chonnam National University, GangNeung, Korea (Republic of), ³Ulsan University GangNeung Asan Hospital, GangNeung, Korea (Republic of), ⁴Dong-A University Medical Center, Pusan, Korea (Republic of), ⁵Ajou University Hospital, Suwon, Korea (Republic of), ⁶Yonsei University Wonju Hospital, Wonju, Korea (Republic of), ⁷Inha University Hospital, Incheon, Korea (Republic of), ⁸Hallym University Kangdong Sacred Heart Hospital, Seoul, Korea (Republic of), ⁹Kangwon National University Hospital, Chuncheon, Korea (Republic of), ¹⁰Pusan National University Hospital, Busan, Korea (Republic of), ¹¹Inje University Sanggye Paik Hospital, Seoul, Korea (Republic of), ¹²SoonChunHyang University Seoul Hospital, Seoul, Korea (Republic of), ¹³Soonchunhyang University Cheonan Hospital, Cheonan, Korea (Republic of), ¹⁴Inje University Ilsan Paik Hospital, Ilsan, Korea (Republic of), ¹⁵Chungbuk National University Hospital, Cheongju, Korea (Republic of), ¹⁶The Catholic University of Kores Bucheon St. Mary's Hospital, Bucheon, Korea (Republic of)

Background: Transradial intervention (TRI) is drastically increasing in every intervention society around the world because of lower incidence of major bleeding and vascular complications compared with trans-femoral intervention (TFI). However, there have been limited data regarding clinical outcomes of TRI versus TFI in ST elevation myocardial infarction (STEMI) patients (pts) in Asian population.

Methods: A total of 689 consecutive STEMI pts from nine major hospitals were enrolled from Jan to Dec 2009. Cumulative major clinical outcomes up to 12 months were compared between TRI (n=220, 31.9%) and TFI group (n=469, 28.1%).

Results: Baseline characteristics showed that TRI group had more smokers and a higher incidence of hypertension, diabetes mellitus and previous cerebrovascular accidents whereas TFI group had a higher incidence of multi-vessel disease, left circumflex lesion, type B2 or C lesion and chronic total occlusion. TRI group had a lower incidence of major and minor hemorrhage during admission. Clinical outcomes up to 12 months showed that the incidence of recurrent myocardial infarction, target lesion revascularization (TLR) and target vessel revascularization (TVR) were lower in the TRI group. Propensity score matched analysis showed that TRI was an independent predictor of reducing TVR (OR: 0.08 95% CI: 0.01-0.67, p Value=0.019), MACE (OR: 0.37, 95% CI: 0.15-0.86, p Value=0.022), and MACCE (OR: 0.33, 95% CI: 0.14-0.76, p Value=0.010) at 12 months.

Conclusion: In our study, TRI in STEMI pts undergoing primary PCI with DES was associated with lower 12-months TVR, MACE and MACCE. We suggest that TRI may play an important role in improving mid-term major clinical outcomes of STEMI pts undergoing PCI with DESs.

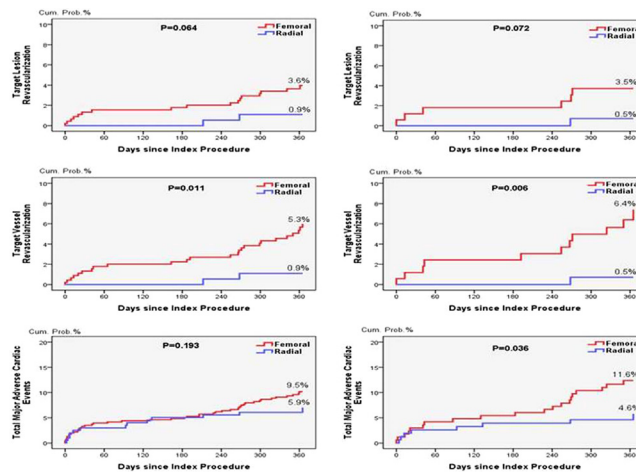


Figure 1 (Left): Kaplan-Meier Survival Curves Describing Cumulative Incidences of Various 1+ Year Clinical Outcomes. Figure 1 (Right): Kaplan-Meier Survival Curves Describing Cumulative Incidences of Various 1+ Year Clinical Outcomes in Propensity Score-Matched Patients

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The Use of Sheathless EauCath to Overcome Radial Artery Spasm and Perforation

Michael Liang¹, Sonia Burgess², Andrew Aitken¹, Phil Matisis¹, Mark Simmonds¹, Anil Ranchord¹, Scott Harding¹
¹Wellington Hospital, Wellington, New Zealand, ²Liverpool Hospital, Sydney, Australia

Background: Transradial access (TRA) for percutaneous coronary intervention and diagnostic coronary angiography has become an emerging trend in the routine practice in most catheterization laboratory as it reduces the incidence of major access site complications such as bleeding and haematoma. Radial artery spasm and perforation are the main reasons for converting a procedure to femoral access. We prospectively investigate the use of Sheathless EauCath (Asahi Intecc, Aichi, Japan) in cases of radial artery spasm and perforation.

Methods: From Jan 2011 till Oct 2013, all patients with angiographically documented radial artery spasm with or without perforation and failure of conventional 5 or 6 Fr diagnostic or guiding catheters to cross the artery despite of repeated intra-arterial nitroglycerin and/or verapamil were elected to attempt for Sheathless EauCath. The procedural success, angiography of the forearm post procedure and access site outcomes were evaluated.

Results: 36 patients, a mean age of 61±9 yrs with 64% male, had significant radial artery spasm (n=25, 69%) or perforation+spasm (n=11, 31%) fulfilled the criteria for the use of Sheathless EauCath. Procedural indications are stable angina in 18%, unstable angina in 3%, non-ST elevation myocardial infarction (NSTEMI) in 54%, ST-elevation myocardial infarction (STEMI) in 15% and 10% for other diagnostic procedures. 6.5 Fr Sheathless EauCath was used in 34 patients (94%) and 7.5 Fr was used in the remaining 2 patients (6%). The Sheathless EauCath was able to overcome the spasm with or without perforation in all cases with all patients achieved a successful procedural outcome. Of the 11 patients who had perforation of the radial artery, 10 patients (91%) had post-procedural angiography showed no extravasation of contrast. The remaining one patient who had trivial residual contrast extravasation outside the radial artery was successfully managed with pressure dressing without significant complications. There was no case of haematoma or access site related bleeding issues.

Conclusion: The Sheathless EauCath can be used safely to overcome the radial artery spasm and perforation during transradial coronary intervention or diagnostic procedures.

TCTAP A-123

Feasibility of Transradial Coronary Intervention in Patients with Cardiac Arrest Caused by Acute Coronary Syndrome

Yukio Mizuguchi, Akihiko Takahashi, Takeshi Yamada, Norimasa Taniguchi, Shunsuke Nakajima, Tetsuya Hata
Sakurakai Takahashi Hospital, Kobe, Japan

Background: The latest European Society of Cardiology guidelines for the management of acute myocardial infarction (AMI) in patients with ST-segment elevation recommend transradial coronary intervention (TRI) to reduce the risk of vascular complications. We evaluated the feasibility of TRI in patients with AMI complicated by cardiac arrest.

Methods: We retrospectively evaluated 20 consecutive patients with AMI who required an extracorporeal membrane oxygenator (ECMO) because of cardiopulmonary arrest resistant to conventional cardiopulmonary resuscitation. Percutaneous access sites and evaluation criteria, including onset-to-ECMO time, door-to-balloon time, and 30-day survival, were investigated.

Results: TRI was performed in 13 patients, whereas the other 7 patients underwent transfemoral coronary intervention (TFI). No significant differences in onset-to-admission time (mean ± SD: 26.8 ± 14.6 vs. 17.0 ± 13.3 min), onset-to-ECMO time (41.8 ± 18.8 vs. 39.0 ± 16.6 min), and door-to-balloon time (61.4 ± 19.1 vs. 79.3 ±