relative blunt tip. RAS usually resolves with intra-arterial vasodilator, sedation and/or analgesics but sometimes persists despite all kinds of treatment. Since brachial artery spasm rarely occurs and initial entry of hydrophilic radial sheath with the assistance of the tapered dilator is usually easy, use of 25 cm long radial sheath up to distal brachial artery should avoid RAS.

METHODS All coronary procedures done by the author at a single cardiac catheterization laboratory (CCL) from June 2013 to November 2016 were entered into the data set. All procedures were done by trans-radial route (except 2 transfemoral because of a very weak radial pulse) using 6F 25cm long hydrophilic radial sheath (St Jude Engage TR sheath or Terumo M Coat Radial Sheath). The patients' demographics including age and sex, the body weight, the nature of procedure, the nature and dosage of drugs used, the presence of RAS, the vessels tackled, success/failure of procedure, in-hospital and early (within 1 week of procedure) vascular complications and major adverse cardiac event were all recorded.

RESULTS There was a total of 332 coronary procedures done by the author at that CCL during that period. There was 286 coronary angiogram (CA) proceeding to percutaneous coronary intervention (PCI), 28 CA with intravascular ultrasound but not PCI, and 18 CA only. There were 225 males and 107 females, with an average age of 63.6 years old (35-93), and body weight of 67.8 kg (40-121). All CA or/and PCI were successfully done trans-radially using the 6F 25 cm long hydrophilic radial sheath. No switch over to transfemoral route was needed. No clinically significant RAS was noted. No injection of vasodilator/ sedation/ analgesics was needed for relief of RAS. At the end of the procedures, all the sheaths were successfully removed without difficulty or complication. All patients were discharged the next morning. No major adverse cardiac event or vascular complication was noted during hospitalization and clinic follow-up within a week after the procedure.

CONCLUSION TRI using 25 cm long hydrophilic radial sheath (St Jude Engage TR sheath or Terumo M Coat Radial Sheath) up to distal brachial artery seemed to eliminate the problem of clinically significant radial artery spasm without the use of intra-arterial vasodilators, sedative and/ or analgesics. The use of this long hydrophilic radial sheath also appeared safe without any vascular complication. There was no problem in the removal of the sheath after the procedure. A larger scale, prospective randomized trial of long versus ordinary radial sheath in TRI may be warranted.

TCTAP A-170

Comparison of Hospital Costs for Women Undergoing Transradial Versus Transfemoral Percutaneous Coronary Intervention in China

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BACKGROUND Despite widespread adoption of transradial approach for percutaneous coronary intervention (PCI) in clinical practice, its role in women remains to be defined. This study sought to compare both hospital costs and clinical outcomes for transradial intervention (TRI) and transfemoral intervention (TFI) in women in China.

METHODS In this retrospective study, 1392 women who underwent PCI in Fuwai Hospital, Beijing, China between 2010-01-01 and 2010-12-31 were enrolled (TRI: n=1014, TFI: n=378). Total hospital costs and in-hospital outcomes were compared between TRI and TFI. An inverse probability weighting (IPW) model was introduced to control for potential bias caused by treatment selection.

RESULTS Women undergoing TRI were younger, more likely to receive PCI for single-vessel lesions, and were less likely to undergo the procedure for double-vessel lesions or left main diseases. After adjusting for all observed characteristics using the propensity score inverse probability weighting method, TRI was associated with a cost saving of ¥7474 (approximately $1150, 95% confidence interval [CI] : ¥2993-¥11,624, p<0.0001). Such differences were mainly driven by lower PCI-related costs. Moreover, TRI patients had shorter length of stay (adjusted difference -1.2 days, 95% CI -1.7 to -0.6, p<0.001), fewer major adverse cardiac events (adjusted odds ratio=0.35 , 95% CI : 0.91-0.63, p<0.001), and less post-PCI bleeding (adjusted OR 0.46, 95% CI 0.30-0.71, p<0.001).

CONCLUSION Compared with TFI, the adoption of transradial approach in women was associated with significantly reduced total hospital costs and more favorable clinical outcomes.

TCTAP A-171

Crossover from Radial to Ipsilateral Ulnar Artery: A Safe and Feasible Alternative in Complex Radial Artery Anatomy

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BACKGROUND Worldwide radial artery approach has been accepted as a default technique for coronary access because of obvious safety advantages over femoral access. However, the transradial (TR) approach may not be feasible in up to 5% of the patients due to inability to puncture the radial artery, radial artery spasm or dissection, hypoplastic or small radial artery, or a non-negotiable radioulnar loop.

Vascular access cross over to the contralateral radial artery or the femoral artery is classically recommended after transradial access failure. However, in selected cases, access crossover to the ipsilateral ulnar artery may be considered. The following study describes the usefulness of an ipsilateral bailout by using a transulnar approach after a failed TR approach due to extreme complex anatomy.

METHODS **The objective of the study**: To study the safety and feasibility of crossover from transradial to ipsilateral transulnar access in difficult radial artery anatomy.

METHODS This is a prospective observational study which included failed transradial access due to complex radial artery anatomy. Between October 2013 to September 2016 totally 50,667 patients underwent coronary angiography. Out of them, 8,443 (16.6%) patients underwent transradial interventions. Four hundred and thirty-nine patients had failed transradial artery approach due to various reasons. Four hundred and twenty-one patients were crossed over to either contralateral radial (18) or femoral artery approach (403). Eighteen patients underwent ipsilateral transulnar coronary interventions. These 18 patients were included in the study.