Vascular Access (Including Transradial Intervention)
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AS-044

Angiographic Evaluation of Femoral Bifurcation in Chinese Population. Shao-Ping Nie, Edmundo P. Lopes Lao, Chang-Qi Jia, Yin Zhang, Qiang Lv, Xin-Min Liu, Jia-Hui Wu, Yan Qiao, Jun Li, Tai-Yang Luo, Jian-Zeng Dong, Xiao-Hui Liu, Chang-Sheng Ma. Beijing Anzhen Hospital, Capital Medical University, Beijing, China.

Background: Common femoral artery (CFA) access has been proved to be safe with lower risk of complications in percutaneous catheterization. The femoral head can be utilized as a reliable landmark to locate the level of femoral bifurcation and the common femoral artery. In the present study, we evaluated the site of femoral bifurcation in Chinese population on femoroiliac angiograms.

Methods: We enrolled 529 consecutive patients undergoing cardiac catheterizations via femoral artery. Femoral angiograms were performed in all patients preparing to use vascular closure devices. Based on the femoral head and the midpoint of pubic symphysis as landmarks, the midpoint, inferior and superior margin of the femoral head were used as borderlines to divide the inguinal region into four zones (A, B1, B2 and C). Location of femoral bifurcation and CFA were evaluated on femoral angiogram.

Results: Femoral bifurcations located in the area of A, B1, B2 and C with 0.2% (1/529), 2.3% (12/529), 42.4% (223/529), 55.4% (293/529), respectively. When arterial puncture located on zone B, B1, B2 and C, CFA cannulation was obtained in 85.0% (436/513), 95.8% (160/167), 79.8% (276/346) and 38.5% (5/13), respectively.

Conclusion: We originally introduced a reliable method for inguinal vascular zone division. The majority of femoral bifurcations located below the midpoint of femoral head in Chinese population. It is an effective measure to puncture common femoral artery between the superior and inferior border of the femoral head.

AS-083

Feasibility And Safety Of A Novel Sheath less System During Routine Percutaneous Transradial Coronary Angiography. Narayan Gadkar, Ryan D’Souza. Surana Hospital, Mumbai, India.

Background: A major source of difficulty with the radial approach is vasospasm and subsequent patient discomfort that can occur with sheath placement and removal. This occurs because the radial artery has a prominent medial layer that is dominated by alpha-1 adrenoceptor function. Adequate sedation and a cocktail of vasodilators administered via the radial sheath have been used to prevent and relieve radial artery spasm. These limitations can be overcome to a certain extent by avoiding the use of a sheath which decreases the outer diameter by approximately 2 Fr as compared to the corresponding sheath size when used.

Methods: Transradial coronary angiography was performed on 100 patients. Patients with an abnormal Allen.

Results: During the learning 200 patients were selected for the sheathless transradial coronary approach. The success rate was 99/100. The one failure was due to severe tortuousity of the subclavian artery and unfavourable coronary anatomy. Radial artery spasm occurred in 10 patients. However no procedure was abandoned due to spasm. There were 6 cases of radial artery occlusion post procedure. No complications occurred during the procedure except for minor peri-catheter oozing in 4 patients which was easily controlled by manual compresions. There was no incidence of hematomas.

Conclusion: Sheathless coronary angiography is a safe and effective option for radial interventionists. The procedure was well tolerated and radial artery spasm and occlusion rates were significantly lesser. The time taken for the procedure was the same. In addition is more cost effective making it a viable option to the conventional procedure.

AS-123

Safety Evaluation of Vascular Closure Devices in Femoral Artery Access. Shao-Ping Nie, Edmundo P. Lopes Lao, Chang-Qi Jia, Yin Zhang, Qiang Lv, Xin-Min Liu, Jia-Hui Wu, Yan Qiao, Jun Li, Tai-Yang Luo, Jian-Zeng Dong, Xiao-Hui Liu, Chang-Sheng Ma. Beijing Anzhen Hospital, Capital Medical University, Beijing, China.

Background: The aim of the study was to evaluate the in-hospital and long term safety performance of vascular closure devices (VCDs) in femoral artery access.

Methods: One thousand and seventy-eight consecutive patients undergoing transfemoral percutaneous cardiac catheterizations from June 2008 to October 2009 were enrolled. We compared the incidence of in-hospital vascular complications between manual compression group and VCDs group. Femoroiliac angiographic data were collected and
analyzed on 92 patients undergoing repeat catheterization via ipsilateral femoral artery for which VCDs have been used for at least 3 month during index transfemoral catheterization. The percent diameter stenosis (ΔDS%) was utilized to evaluate the long-term safety performance of vascular closure devices on femoral angiogram. Restenosis of femoral artery was defined as ΔDS% ≥ 50%.

Results: The overall in-hospital incidence of vascular complication was 0.74% (8/1078). Patients in VCDs group had relatively lower rate of in-hospital complications (p = 0.039) compared with manual compression group. The median interval of femoral angiogram recheck was 232 days. Femoral restenosis at the site of vascular access occurred in 3.3% of 92 patients, but no one had complaints of limb ischemia.

Conclusion: VCDs demonstrated greater in-hospital and long-term safety performance compared with manual compression. Femoral restenosis at puncture site is very rare and usually asymptomatic.

Impact of Left Radial versus Right Radial Access on Midterm Clinical Outcomes in Patients Undergoing Transradial Intervention with Drug-Eluting Stents in Asian population.

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Background: Transradial intervention (TRI) is drastically increasing in every intervention society in all over the world because of the lower incidence of major bleeding and vascular complications. However, there have been very limited published data regarding clinical outcomes according to left versus right radial access transradial intervention in Asian population.

Methods: A total 2639 consecutive patients (pts) of seven major hospitals were enrolled from January to December 2009. In-hospital complications and cumulative clinical outcomes up to six months were compared between left radial access group (n=858, 32.5%) and right radial access group (n=1781, 67.4%).

Results: Baseline characteristics showed that left radial access group were elderly, higher incidence of dyslipidemia, diabetes mellitus, prior cerebral vascular disease (CVD) and higher left ventricular ejection fraction (LVEF) compared with those of right access group. In-hospital complications showed that left radial access group had lower incidence of CVD and transfusion. In-hospital and clinical outcomes up to six months showed that target lesion and vessel revascularization (TLR &TVR) and major adverse cardiac events (MACEs) were lower in the left radial access group (Table). Multivariate analysis showed that left radial access was an independent predictor of TVR (Adjusted OR: 36.01, 95% CI: 4.880-265.735, p-value<0.001) and TVR-MACE (Adjusted OR: 3.991 95% CI: 2.218-7.181, p-value=0.001) at 6 months.

Conclusion: In our study, left radial access group in pts undergoing TRI with DESs was associated with lower in-hospital complications and better 6 months clinical outcomes as compared with those of right radial access group.


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Background: Various techniques have been used to acquire common femoral artery (CFA) access which was associated with lower risk of complications in percutaneous catheterization. A relatively simple, safe and reliable technique was expected.

Methods: We introduced a new inguinal ligament-guided technique and inguinal division. Eight hundred and twenty-two unselected patients undergoing transfemoral percutaneous coronary catheterization from 2004 to 2009 were studied. After locating the inguinal ligament, a reference to conduct artery puncture site, medius pinpointed the intersection of inguinal ligament and femoral artery. Artery puncture was then performed at the inferior margin of forefinger. By femoral angiogram, we utilized femoral head as a landmark, of which the midpoint, inferior and superior margin were referred to borders, to divide inguinal region into zone A, B, B1 and C for femoral artery cannulation. Femoral head (zone B) was defined as the optimal area of femoral artery puncture.