doses. The aim of our study was to determine the ORD during TRCA performed to OP.

Methods: Prospective observational study. From January 2014 to March 2014, ORD of 5 expert operators were measured during TRCA performed to 107 patients. Operators were equipped with 4 real-time dosimeters placed at eye level, left wrist, thorax outside the lead apron, and left inguinal region outside the lead apron. Operator effective dose (ED) was evaluated using the data collected from the 4 dosimeters. Right radial access was used during all procedures and patients with prior CABG were excluded. Obesity was defined as body mass index (BMI) $\geq 30$ kg/m².

Results: Mean age was 72.10 years, 67(26.6%) were male and 28(26.2%) were OP. Baseline characteristics were similar in non-obese patients (NOP) and OP except BMI (26.0±2.8 vs 34.0±3.8; respectively, p=0.001). Dose area product was higher in OP (29.0±11.6 Gycm²) than in NOP (17.2±9.0 Gycm²; p=0.001) with similar fluoro oscopy time between both groups (2.3±1.1 minutes in NOP vs 2.7±1.2 minutes in OP; p=0.315). ORD measured at eyes (3.6±1.0 mSv in NOP;4.1±3.6 mSv in OP; p=0.001), at wrist (18.2±14.9 mSv in NOP;27.5±19.0 mSv in OP; p=0.01), and at thorax level (11.2±9.3 mSv in NOP;20.2±14.4 mSv in OP; p=0.004) were higher in OP compared with NOP, without significant difference at inguinal region (35.5±26.8 mSv in NOP;47.1±32.7 mSv in OP;p=0.073). There was a positive correlation between BMI and ED (correlation coefficient 0.36;p<0.001). During TRCA, ED was 1.8-fold higher in OP compared with NOP (95% CI: 1.2 to 2.8), with 1.2±0.9 mSv in NOP and 1.8±1.1 mSv in OP; p=0.006).

Conclusions: TRCA in OP are accompanied with higher ORD compared with procedures in NOP. Efforts should be made to reduce ORD during TRCA, and general recommendations regarding best practice for radiological protection must be followed, with broader adoption of techniques and protection devices in addition to standard protection, particularly when performing in OP population.

TCT-837

Radiation Exposure in Right versus Left Transradial Access for Coronary Procedures

Stefano Rigattieri1, Maria Cera1, Cristian Di Russo1, Silvio Fedele1, Alessandro Scialabba1
1Interventional Cardiology, Sandro Pertini Hospital, Rome, Italy

Background: Although the right trans-radial approach (R-TRA) is more popular, being used in about 90% of trans-radial procedures worldwide, in left TRA (L-TRA) the catheter course is more similar to trans-femoral approach, thus allowing an easier negotiation of coronary ostia which, in turn, might translate into reduced fluoroscopy time and less radiation exposure. Aim of this study was to compare radiation exposure, assessed by Dose Area Product (DAP), in R-TRA versus L-TRA in a high-volume, trans-radial Center.

Methods: We retrospectively selected diagnostic and interventional procedures (PCI) performed by R-TRA or L-TRA at our Center from May 2009 to May 2014. We only excluded bypass studies, which are routinely performed by L-TRA for left mammary interventions. Procedural difficulties were excluded. Procedural difficulty was defined as requiring: 1) access site crossover; 2) more than 2 catheters; or 3) fluoroscopy time more than 10 minutes to complete coronary angiography. Baseline variables and procedure details were reviewed, and multivariate analyses were performed to determine independent predictors of procedural difficulty in TR-CA.

Results: Of the total of 1,824 patients, TR-CA accounted for 1,314 patients (72%). After excluded 78 due to missing data, 1,236 patients were included in the final analysis. Baseline characteristics were mean age of 64 years old, 58% were male, and large ethnic diversity was observed: 28% White, 28% Asian, 25% Hispanic and 18% African American. Procedure difficulty was observed in 321 patients (26.0%), of which access site crossover accounted for 82 (6.6%) and multiple catheter use or increased fluoroscopy time were observed in 239 (19.3%). On multivariate analysis, procedural difficulty was independently associated with age above 70 (odds ratio [OR] 1.44, 95% confidence interval [CI] 1.09 to 1.90; p=0.001), female gender (OR 1.38; 95% CI 1.06 to 1.80; p=0.018), hyperlipidemia (OR 1.47; 95% CI 1.12 to 1.93; p=0.006) and non-Asian ethnicity (OR 2.38; 95% CI 1.67 to 3.38; p<0.001). Neither BMI or height were statistically significant in predicting procedural difficulty.

Conclusions: The incidence of procedural difficulty in TR-CA was 26.0%, and independent predictors were age above 70, female gender, hyperlipidemia, and non-Asian ethnicity.

Vascular Access and Intervention - Femoral (includes closure devices)

Washington Convention Center, Lower Level, Hall A
Saturday, September 13, 2014, 5:00 PM–7:00 PM

Abstract nos: 840-851

TCT-840

Gender Specific Analysis Of The Randomized ISAR-CLOSURE Trial: The Comparison of Vascular Closure Devices Versus Manual Compression After Femoral Artery Puncture

Sandra Helde1, Senta Gewalt1, Katerina Haidas1, Roland Schmidt2, Andreas Stein3, Sebastian Koefner1, Salvatore Cassese1, Petra Hoppmann2, Massimiliano Fusaro1, Jurinda Mehilli4, Heribert Schunkert1, Karl-Ludwig Laugwitz1, Adnan Kastrati1, Sebastian Kufner1, Salvatore Cassese1, Petra Hoppmann2, Massimiliano Fusaro1, Jurinda Mehilli4, Heribert Schunkert1, Karl-Ludwig Laugwitz1, Adnan Kastrati1, Stefanie Schultz4
1Deutsches Herzcentrum München, Munich, Germany, 2Internistische Medizin II, München, Germany, 3Klinikum rechts der Isar, Munich, Germany, 4Krankenhaus der Barmherzigen Brüder, Innere Medizin II, Munich, Germany, 5Klinikum der Universität München, Medizinische Klinik und Poliklinik I, LMU, Munich, Germany