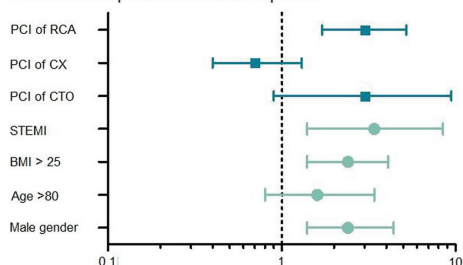


(CAG) and percutaneous coronary interventions (PCI). Patient characteristics and procedural factors were collected in our database. Univariate and subsequent multivariate analyses were performed to identify factors associated with relatively high operator exposure (above median). We corrected for the non-standard use of additional radiation protection measures such as the use of radiation absorbing drapes.

**Results:** From January to May 2017 a total of 766 coronary procedures were performed. Median primary operator exposure was 8.8  $\mu$ Sv (3.6–20.5). After correcting for the use of radiation protective measures in multivariate analyses, baseline patient characteristics associated with high operator radiation exposure (>8.8  $\mu$ Sv) included patients presenting at the catheterization laboratory with ST-segment elevation (OR 3.5, 95% CI 1.4–8.5), male gender (OR 2.4, 95% CI 1.4–4.4) and patients with a body mass index higher than 25 (OR 2.4, 95% CI 1.4–4.1). The only statistically significant procedural characteristic in multivariate analysis associated with high operator radiation exposure, was PCI of the right coronary artery (OR 3.0, 95% CI 5.2).

#### Predictors of operator's radiation exposure



Multivariate analysis of patient and procedural characteristics associated with increased risk on high radiation exposure of the primary operator. Odds ratio and 95% confidence intervals.

**Conclusions:** In the current study various baseline patient characteristics as well as PCI of the right coronary artery were associated with high radiation exposure of the primary operator. These patient characteristics are known before the patient enters the catheterization laboratory. Therefore, in these high-radiation-exposure-risk procedures interventional cardiologists should consider the use of additional protection measures such as radiation absorbing drapes, extra lead-screens and maintain appropriate distance from the patient during fluoroscopy.

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#### P3582

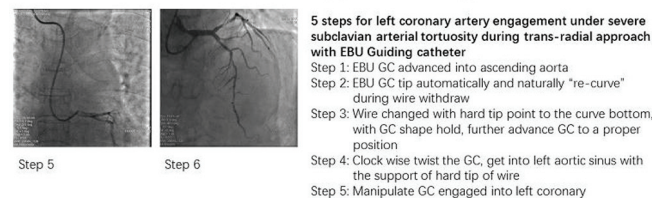
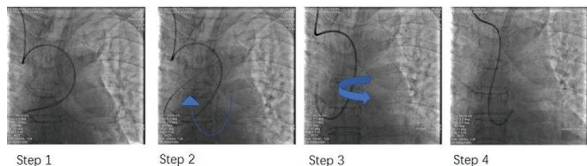
##### An effective manipulation method with ebu guiding catheter for left coronary artery engagement under severe subclavian arterial tortuosity during trans-radial approach

J. He, L.F. Wang, X.C. Yang. *Beijing Chaoyang Hospital, Heart Center, Beijing, China People's Republic of.* On behalf of Heart Center, Beijing Chaoyang Hospital

**Background/Introduction:** Subclavian arterial tortuosity is one of the obstacle for left coronary intubation during right radial approach (RRA), crossover to femoral or left radial approach (LRA) are quite frequently. An effective and easy manipulate method is introduced with EBU guiding catheter (GC) in this scenario.

**Purpose:** To introduce an effective and easy manipulate method for left coronary intubation under subclavian arterial tortuosity during RRA.

**Methods:** There are 5 basic steps for guiding catheter manipulation. Step 1, EBU GC entered ascending aorta, above aortic sinus; Step 2: EBU GC tip automatically and naturally "re-curve" during wire withdraw (formed "J" shape); Step 3: Wire exchanged with hard tip point to the curve bottom, with GC shape hold, further advance GC to a proper position; Step 4: Clock wise twist the GC, get into left aortic sinus by the support of hard tip of wire; Step 5: Manipulate GC engaged into left coronary.



5 steps of EBU GC manipulation

**Results:** Over 90% of annual PCI cases are RRA in our daily practice, left coronary PCI with severe subclavian arterial tortuosity account only a few (10–30/3000 per annual). With this method, most of intubation were accomplished within 3 minutes without crossover to femoral or LRA. Engagement were fine with good support and coaxial, no complications were reported.

**Conclusion(s):** Our method is clinical safe in our daily practice, also showed time efficiency and easy manipulation.

## CORONARY INTERVENTIONS: OUTCOMES

#### P3583

##### Outcomes following percutaneous coronary intervention in Non-ST-segment elevation myocardial infarction patients with previous coronary artery bypass grafts surgery

A. Shoaib<sup>1</sup>, T. Kinnaird<sup>2</sup>, N. Curzen<sup>3</sup>, P. Ludman<sup>4</sup>, M.D. Belder<sup>5</sup>, M. Rashid<sup>1</sup>, C.S. Kwok<sup>1</sup>, J. Nolan<sup>1</sup>, A. Zaman<sup>6</sup>, M. Mamas<sup>1</sup>. <sup>1</sup>Keele University, Keele Cardiovascular Research Group, Institute for Primary Care and Health Sciences, Keele, United Kingdom; <sup>2</sup>University Hospital of Wales, Cardiff, United Kingdom; <sup>3</sup>University of Southampton, Southampton, United Kingdom; <sup>4</sup>Queen Elizabeth Hospital Birmingham, Birmingham, United Kingdom; <sup>5</sup>James Cook University Hospital, Middlesbrough, United Kingdom; <sup>6</sup>Newcastle University, Newcastle upon Tyne, United Kingdom

**Background:** There is limited data on outcomes of patients with previous CABG presenting with Non-ST segment elevation Myocardial Infarction (NSTEMI) undergoing Percutaneous Coronary Intervention. We compare and contrast clinical characteristics and outcomes in NSTEMI patients undergoing PCI with or without prior CABG surgery in a large, real-world, national cohort.

**Methods and results:** We analysed 205,039 patients with NSTEMI in the 2007–2014 British Cardiovascular Intervention Society (BCIS) database who underwent PCI in England & Wales. Clinical, demographical, procedural and outcome data were analysed by dividing into three groups; Group 1: PCI in native coronary arteries (n=186,670), Group 2: PCI in native arteries with prior CABG (n=8,825), Group 3: PCI in GRAFTS (n=9,544). Patients with prior CABG (with PCI to native arteries or grafts) were older (mean age 69 years in group 3 & 2 and 64 years in group 1, P<0.001), had more comorbidities and higher mortality at 30 days (group 2 – 2.6%, group 3 – 1.9%) and 1 year (group 2 – 8.29%, group 3 – 7.08%) as compare to those without prior CABG (group 1: 1.7% & 4.87%) (P<0.001). However, in Multivariable analysis, no significant difference in outcomes was observed which include 30 days mortality (OR: group 2 = 0.87 (CI 0.69–1.80, P=0.20) & for group 3 = 0.91 (CI 0.71–1.17, P 0.46) as compare to group 1) and 1-year mortality (OR: group 2 = 0.95 (CI 0.84–1.07, P 0.37) & for group 3 = 1.02 (CI 0.90–1.17, P 0.72) as compare to group 1), in hospital major adverse cardiovascular events (OR: group 2 = 1.08 (CI 0.88–1.34, P 0.45), group 3 0.97 (CI 0.77–1.23, P 0.82) as compare to group 1), in-hospital stroke (OR: group 2 = 1.37 (CI 0.71–2.69, P 0.35), group 3 = 1.13 (CI 0.55–2.34, P 0.73) compare to group 1) and in-hospital bleeding (OR: group 2 = 0.68 (CI 0.51–0.92, P 0.01), group 3 = 0.99 (CI 0.75–1.33, P 0.98) compare to group 1).

**Conclusion:** Patients with prior CABG presenting with NSTEMI treated with PCI had more co-morbid illnesses but once these differences were adjusted for, prior CABG did not independently confer additional risk of mortality and major adverse cardiovascular events.

#### P3584

##### Long term outcome of unprotected left main coronary artery disease: comparison between CABG and pci in korean single center

K. Song, M.H. Kim, J.X. Li. *Dong-A University, Department of Cardiology, College of Medicine, Busan, Korea Republic of*

**Background:** The benefit of CABG over PCI for the patients with ULMCAD is controversial. Although many studies had less favorable short and mid-term outcomes of PCI in patients comparing to CABG, there were limited papers on the long term survival outcomes. We sought to compare the long term (10 years) outcomes of PCI and CABG in Korean patients with ULMCAD.

**Methods:** We selected 1613 patients undergoing PCI or CABG from 1998–2008. 640 patients were excluded because their LM stenosis were <50%. A total of 973 patients were enrolled in our study. They were divided into PCI and CABG groups. The primary outcome measure in the current study was a major adverse cardiac and cerebrovascular event (MACCE), defined as any of the following complications from admittance to discharge: all-cause death, non-fatal cardiac arrest, acute myocardial infarction (AMI), congestive heart failure, new cardiac arrhythmia, angina, or stroke. We assessed for clinical baseline, angiographic and procedural characteristics and adverse events by reviewing hospitalization records and clinic visit.

**Results:** There were 376 patients in the PCI group and 597 patients in the CABG group. The mean ages of patients were 63.6±10.8 years and 64.3±9.2 years respectively in the PCI and CABG group. More male occupied in the PCI group (76.1% vs. 68.0%; p=0.007). The incidence of primary outcome was similar between 2 groups at 1 year follow-up results (12.8% vs. 11.7%; p=0.692). At 5 years, MACCE had occurred in 23.1% of the patients in the PCI group and in 19.1% of the patients in the CABG group, which was not difference (p=0.194). The cumulative 10-year incidence of adjusted risk for MACCE was not significant between the