cardiac surgery, postoperative delirium, diabetes, baseline cognitive impairment (defined as a baseline MoCA ≥ 24), and non-English speaking status.

Results: We included 1424 (707 On-pump, 717 Off-pump) patients in this analysis. For every increase of 5 years in age above the mean, the odds of POCD at discharge increased 50% (OR 1.5, 95% CI 1.1–1.9, P=0.003), though age had no impact at 30-days or 1-year. Baseline cognitive impairment was associated with decreased odds of POCD at discharge (OR 0.4, 95% CI 0.2–0.6, P<0.0001). 30-days (OR 0.4, 95% CI 0.2–0.7, P=0.006), and 1-year (OR 0.5, 95% CI 0.3–0.8, P=0.003). Patients with diabetes did not have an increased odd of POCD at discharge (OR 0.3, 95% CI 0.2–0.5, P=0.03) over time.

Conclusion: Conclusions: Contrary to previous reports, baseline cognitive impairment was protective at all time-points when a defined baseline MoCA cut-point was used. The association of diabetes with POCD at 1-year suggests that cognitive changes in this population are more related to the natural history of the disease, but more study including a control group is required.

2203 | BEDSIDE
Association between repeated transradial catheterization and vascular function of brachial artery assessed by flow mediated dilatation in long-term follow-up

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Association between repeated transradial catheterization and vascular function of brachial artery assessed by flow mediated dilatation in long-term follow-up

Background: Catheterization via the radial artery has been increasingly performed, although transradial access for cardiac catheterization has been reported to affect the radial and brachial artery vascular function. There are only few reports regarding long-term follow-up of the vascular dysfunction after catheterization, and specifically, the impact of repeat catheterization on the change of vascular function has not been reported.

Objectives: To investigate the effect of repeated transradial catheterizations on flow mediated dilatation (FMD) of ipsilateral brachial artery at more than 3 months after catheterization.

Methods: We prospectively enrolled 48 patients undergoing coronary angiography via right radial artery for the first time. Flow-mediated dilatation (FMD) was measured with use of vascular ultrasound before (pre-FMD) and at 24 h after catheterization (post-FMD). All the coronary angiography was successfully performed on the radial and brachial artery vascular function. There were no complications during the procedure. Post-FMD was significantly lower than pre-FMD (3.0±1.7% vs 3.6±1.5%, p<0.001), which was comparable to pre-FMD (3.9±1.6% vs 3.0±1.7%, p=0.001), and was not increased from post-FMD (3.9±1.6% vs 3.0±1.7%, p=0.001), which was comparable to pre-FMD (3.9±1.6% vs 3.0±1.7%, p=0.001).

Conclusions: Degree of recovery in FMD was not influenced by repeated catheterization, although transradial access for cardiac catheterization has been reported to deteriorate the radial and brachial artery vascular function. There are only few reports regarding long-term follow-up of the vascular dysfunction after catheterization, and specifically, the impact of repeat catheterization on the change of vascular function has not been reported.

2204 | BEDSIDE
Quality of life and economic outcomes of on-pump and off-pump staged multivessel coronary artery bypass grafting - MASS III trial 5-year follow-up

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Quality of life and economic outcomes of on-pump and off-pump staged multivessel coronary artery bypass grafting - MASS III trial 5-year follow-up

Purpose: To evaluate the long-term cost-effectiveness of on-pump and off-pump coronary artery bypass grafting.

Methods: Between 2001 and 2006, 308 patients with stable multivessel coronary artery disease and preserved ventricular function were randomized to on-pump CABG (n=153) or off-pump CABG (n=155). The 2 groups were well matched for baseline characteristics. Costs for hospital stays, physician services, outpatient care, and medications were assigned using 2016 US dollars. Health state utilities were assessed using the SF-6D questionnaire.

Results: On-pump CABG patients received a greater number of grafts per patient (2.97 versus 2.49; P<0.001) and had less incomplete revascularization (42.5% versus 52.9%; P=0.052). QoL improved similarly in both groups from baseline (0.781 vs 0.768, p=0.381) to 6 months (0.817 vs 0.809, p=0.175), 12 months (0.832 vs 0.831, p=0.696), 24 months (0.837 vs 0.827, p=0.349) and 60 months (0.829 vs 0.820, p=0.300). The cumulative QALY adjusted by baseline over 5-year follow-up was higher in on-pump group (3.707; IC 95% 3.678–3.736 and 3.556; IC 95% 3.528–3.585), but not statistically significant. Total costs for the index hospitalization per patient was higher in the off-pump CABG group ($2966.73±381.45 vs $3046.39±890.81, p=0.293). Over the 5-year follow-up, costs were similar between the two treatment groups. Nonetheless, 5-year cumulative cost remained only $180.64 higher per patient with on-pump CABG.

Conclusion: Despite incomplete revascularization following off-pump CABG, there was no difference in QoL and cost-analysis between off-pump and on-pump procedures. QoL markedly improved in both treatment groups over 5-year follow-up.

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