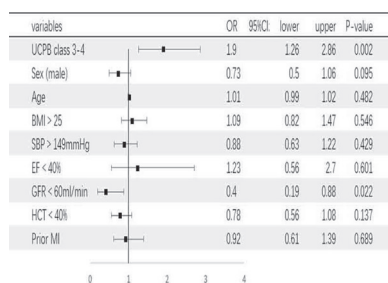


analyzed. Major bleeding were defined as the universal definition of perioperative bleeding (UDPB) class 3 to 4 including following criteria: 1) sternal closure delayed; 2) postoperative chest tube blood loss within 12 hours  $\geq 1001$  mL; 3) requiring transfusion of  $\geq 5$  U packed red cells (PRBCs) or fresh frozen plasma; 4) surgical reexploration. Baseline characteristics were compared between patients with and without major bleeding. Univariate and multivariate logistic regression analyses were performed to investigate the impact of perioperative major bleeding on postoperative myocardial infarction.

**Results:** A total of 3830 patients who underwent OPCAB were included in this study. Major bleeding rate was 9.45% ( $n=362$ ). And postoperative myocardial infarction occurred in 202 (5.27%) patients. Of 362 and 3468 patients with and without major bleeding, 30 (8.3%) and 172 (5.0%) patients suffered from postoperative myocardial infarction ( $p=0.007$ ). Univariate analyses demonstrated that patients with major bleeding were at a higher risk of postoperative myocardial infarction (OR=1.73, CI: 1.16–2.59,  $p=0.007$ ). Multivariate regression analysis showed that perioperative major bleeding increased the risk of postoperative myocardial infarction during OPCAB (OR=1.90, CI: 1.26–2.86,  $p=0.002$ ).

Comparison of perioperative bleeding characteristics between MI and without-MI groups

Variables	Without MI group (n=3628)	MI group (n=202)	P value
Chest tube output $\geq 1001$ ml	7.6%	11.9%	0.028
Transfusion of PRBCs $\geq 5$ U	2.5%	5.9%	0.003
HB decrease $\geq 50$ g/l	33.1%	41.1%	0.019
Reoperation for bleeding	2.1%	5.9%	0.001



Results of multivariable regression

**Conclusion:** Perioperative major bleeding is an independent risk factor of postoperative myocardial infarction in patients undergoing OPCAB.

## P2662

### Prognostic value of postoperative high-sensitivity troponin among patients undergoing fenestrated and/or branched endovascular aortic aneurysm repair

M.D. Moussa<sup>1</sup>, A. Lamer<sup>1</sup>, G. Mass<sup>1</sup>, P. Louvel<sup>1</sup>, S. Lecaitel<sup>1</sup>, A. Hertault<sup>2</sup>, G. Gantois<sup>1</sup>, G. Leroy<sup>1</sup>, S. Ait-Ouarab<sup>1</sup>, C. Brandt<sup>1</sup>, E. Kipnis<sup>1</sup>, J. Sobocinski<sup>2</sup>, B. Tavernier<sup>1</sup>, S. Haulon<sup>2</sup>, E. Robin<sup>1</sup>. <sup>1</sup>Cardiology Hospital of Lille, Anesthesia and Cardiovascular Intensive Care Unit, Lille, France; <sup>2</sup>Cardiology Hospital of Lille, Vascular Surgery Department, Lille, France

**Introduction:** Patients undergoing fenestrated/branched endovascular aortic repairs (F/B-EVAR) are particularly at risk of myocardial injury after non-cardiac surgery (MINS). The recently introduced high-sensitivity troponin (HsTnT) may allow better diagnosis of MINS as compared to former troponin assays. However HsTnT prognostic value has not been evaluated in F/B-EVAR patients.

**Purpose:** Our objectives were to assess the prognostic value of postoperative HsTnT in patients undergoing F/B-EVAR and to identify the optimal threshold of HsTnT that defines MINS in this population.

**Methods:** Data from 222 adult patients who underwent F/B-EVAR were extracted from a data warehouse that collects data from our intraoperative, biology and administrative management systems. HsTnT values of the first three postoperative days were gathered and the highest value is identified as Peak-HsTnT. After univariate analysis, a multivariate logistic regression model was built to explain the main endpoint of the study, in-hospital mortality.

**Results:** The primary endpoint occurred in 5.2% of patients. Peak-HsTnT and Day-1 HsTnT were independently associated with in-hospital mortality, OR 1.02 (95% CI 1.00–1.023),  $p=0.024$ , OR 1.05 (95% CI 1.00–1.11),  $p=0.039$  respectively. Among HsTnT variables, Peak-HsTnT showed the best predictive performances for the primary endpoint after ROC curve analysis. Peak-HsTnT thresholds of 35 ng/L had the highest Youden index and positive likelihood ratio, the lowest negative likelihood ratio, for the prediction of in-hospital mortality.

**Conclusion:** After F/B-EVAR, peak-HsTnT was independently associated with in-hospital mortality.

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## P2663

### Results from a multicenter study of transradial iliac artery stenting in Japan

N. Shinozaki<sup>1</sup>, Y. Iwasaki<sup>2</sup>, H. Doi<sup>3</sup>, Y. Imoto<sup>4</sup>, Y. Ikari<sup>1</sup>. <sup>1</sup>Tokai University School of Medicine, Isehara, Japan; <sup>2</sup>Osaka General Medical Center, Cardiology,

Osaka, Japan; <sup>3</sup>Kumamoto Rosai Hospital, Cardiology, Yatsushiro, Japan; <sup>4</sup>Fukuoka Wajiro Hospital, Cardiology, Fukuoka, Japan

**Background:** We previously reported the safety and effectiveness of transradial iliac artery stenting from a small-sized single center cohort. To date, large-scaled multicenter studies that address this issue are lacking.

**Purpose:** We evaluated the safety and efficacy of transradial iliac artery stenting from a multicenter database in Japan.

**Methods:** Transradial iliac artery stenting was performed in 115 lesions from 105 patients. Approach site was determined at the discretion of the operator. Cases with scheduled multiple sheath insertion for bidirectional approach were excluded. Clinical data were analyzed retrospectively.

**Results:** From this cohort, the average age was  $71.1 \pm 8.3$  years. Eighty-six (81.9%) patients were male. Diabetes mellitus, hypertension, dyslipidemia, and smoking habit were present in 39 (37.1%), 84 (80.0%), 69 (65.7%), and 78 (74.3%) patients, respectively. Rutherford classification 1, 2, 3, 4, and 5 constituted 40 (34.8%), 42 (36.5%), 28 (24.3%), 3 (2.6%), and 2 (1.7%); while, Trans-Atlantic Inter-Society Consensus II classification A, B, C, and D were 74 (64.3%), 21 (18.3%), 15 (13.0%), and 5 (4.3%) of the lesions, respectively. Twenty seven lesions (23.5%) were chronic total occlusions. All lesions were successfully treated with a total of 141 stents. Four cases (3.8%) needed additional puncture of the common femoral arteries for successful stent implantation. Fifty two (45.2%), 34 (29.6%), and 29 (25.2%) lesions were treated using 4.5, 5, and 6 French long guiding sheaths, respectively. Ankle brachial index significantly improved from  $0.65 \pm 0.17$  to  $0.95 \pm 0.15$  ( $p < 0.0001$ ). None of the patients had any procedural or access site-related complications such as hematoma, major bleeding, blood transfusion, stroke, cholesterol embolism, aortic dissection, or arterial perforation. Radial artery occlusion without symptom was observed in 3 cases (2.9%) after the procedure. There were no target lesion revascularization or complications at 1-month.

**Conclusions:** Transradial iliac artery stenting is safe and feasible without any specific complications for carefully selected patients compared to traditional transfemoral approach.

## P2664

### Long-term follow up of first-in-human study in bypass of stenosis av shunt by an autologous in-body-tissue-engineered (biotube) vascular graft

Y. Nakayama<sup>1</sup>, Y. Kaneko<sup>2</sup>, N. Okumura<sup>2</sup>, E. Tatsumi<sup>1</sup>. <sup>1</sup>National Cerebral and Cardiovascular Center, Osaka, Japan; <sup>2</sup>Tenri Hospital, Nara, Japan

**Background and purpose:** An arteriovenous (AV) fistula is the current gold standard for chronic hemodialysis access. However, a substantial number of shunt will fail because of stenosis or obstruction at anastomotic site or venous outflow. Tissue-engineered blood vessels have been proposed for dialysis access as an alternative to prosthetic grafts. We developed autologous collagenous tubular tissues "Biotubes" formed by in-body tissue architecture (IBTA), proposed by us as a regenerative medicine technology that can prepare autologous implantable tissues by using a patient's body as a bioreactor. IBTA represents a novel and practical approach to regenerative medicine. This report presents the first-in-human results after 2 years of follow-up for the first two patients bypassed with autologous Biotube.

**Methods and results:** Two female patients had end-stage renal disease and had been receiving hemodialysis with a high probability of failure, because of repeatable stenosis about every 2 or 3 months at venous outflow regions. Biotube vascular grafts with 5 or 6 mm in diameter and 7 cm in length were prepared as autologous collagenous tubular tissues with wall thickness of ca. 1mm by embedding of molds, assembled with a silicone center rod and a stainless steel tube, into patients abdominal subcutaneous pouches for 2 months. The Biotubes after stored for 1 day in a 70% alcohol solution were bypassed by end-to-side anastomoses over venous stenosis region of an AV shunt. Palpable thrill and typical turbulent flow pattern by pulsed-wave Doppler were observed. Monthly angiography showed little change in the implanted grafts with no signs of dilation or stenosis with time points up to 3 months. Although shortening of the Biotubes occurred, dialysis was possible without requiring balloon expansion for 2 years.

**Conclusion:** This long-term follow up study successfully supported the concept of creating dialysis access from autologous collagenous Biotube grown in patients subcutaneous pouches.

## P2665

### Misdiagnosing acute aortic syndrome as acute coronary syndrome: a single center experience

J. Fernandez Martinez<sup>1</sup>, V. Garcia Hernando<sup>1</sup>, A. Maestro Benedicto<sup>1</sup>, A. Barros-Membrilla<sup>2</sup>. <sup>1</sup>Hospital de la Santa Creu i Sant Pau, Cardiology, Barcelona, Spain; <sup>2</sup>Hospital de la Santa Creu i Sant Pau, Aortic Diseases Department, Barcelona, Spain

**Background:** Acute aortic syndrome (AAS) is a diagnostic challenge, and it is frequently confused with acute coronary syndrome (ACS) since its symptoms and electrocardiographic changes may mimic those of myocardial ischemia.

**Purpose:** The aim of this study is to define clinical and electrocardiographic findings resulting in an inappropriate diagnosis of ACS in patients with AAS.