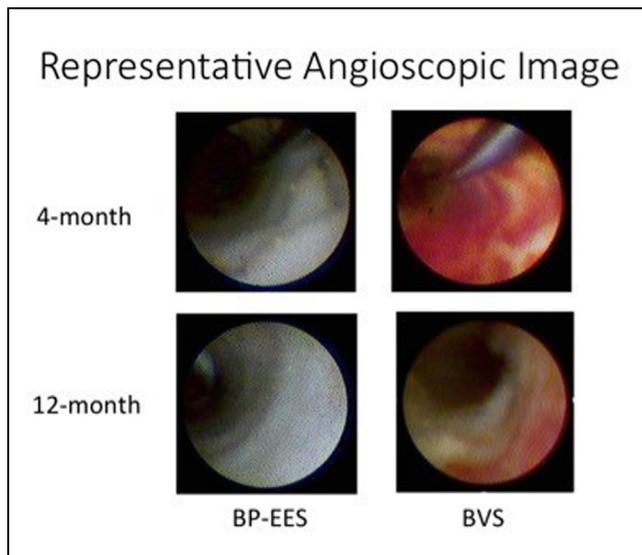


**METHODS** This is a prospective, non-randomized, single center clinical trial. 13 eligible subjects with multi-vessel-disease were enrolled and deployed in the same patient and on the same time, but in different coronary vessels. Vascular healing was assessed via optical coherence tomography (OCT) and coronary angiography to estimate the intra-coronary condition at 4-month and 12-month.

**RESULTS** Imaging-follow-up was completed in 11 patients at 12 month. The condition of neointimal coverage was similar between the two groups by OCT at 4-month and 12-month. Intra-stent thrombus was significantly higher in the BVS groups, but thrombus volume was very small at 4 month, which were similar tendency at 12 month follow-up. Angioscopy showed red-thrombus and yellow-plaque more frequently in BVS than in BP-EES group (Thrombus: BP-EES: 33.3% vs. BVS: 81.8%,  $p=0.02$ ) at 4 month. At 12-month follow-up, the rate of red thrombus in BVS decreased to 50.0%. However, thrombus was not detected in BP-EES. These findings indicate BVS still had instability up to 12 month compared to BP-EES.



**CONCLUSION** Comparing with BP-EES, vascular healing of BVS after deployment was significantly different and was not completed at 12 months follow-up.

**CATEGORIES CORONARY:** Bioresorbable Vascular Scaffolds

**TCT-571**

**Different tissue morphology of in-stent restenosis in hemodialysis patient compared with non-hemodialysis patients: a prospective multicenter optical coherence tomography registry**



Yoshinori Nagasawa,<sup>1</sup> Hiromasa Otake,<sup>2</sup> Tomofumi Takaya,<sup>3</sup> Masaru Kuroda,<sup>4</sup> Junya Shite,<sup>5</sup> Masahito Kawata,<sup>6</sup> Daisuke Matsumoto,<sup>7</sup> Daisuke Kamoi,<sup>8</sup> Ken-ichi Hirata<sup>9</sup>  
<sup>1</sup>Kobe University Graduate School of Medicine, Kobe, Japan; <sup>2</sup>Kobe University Graduate School of Medicine, Kobe-shi, Japan; <sup>3</sup>Himeji Brain and Heart Center, Himeji, Japan; <sup>4</sup>Akashi Medical Center, Kobe, Japan; <sup>5</sup>Osaka Saiseikai Nakatsu Hospital, Osaka, Japan; <sup>6</sup>Akashi medical center, Akashi, Japan; <sup>7</sup>Yodogawa Christian Hospital / Cardiology, Osaka, Japan; <sup>8</sup>Nagoya Kyoritsu Hospital, Nagoya, Japan; <sup>9</sup>Kobe University graduate school of medicine, Kobe City, Japan, Kobe, Japan

**BACKGROUND** It has been reported hemodialysis patients frequently require repeated revascularization after stent placement, however, little is known on the mechanism of recurrence. The aim of this study is to investigate the difference of tissue morphology of in-stent restenosis (ISR) between hemodialysis (HD) patients and non-HD patients using optical coherence tomography (OCT).

**METHODS** In this multicenter OCT registry, 133 ISR lesions underwent OCT examination before second intervention in 18 HD patients and 115 non-HD patients. We classified OCT-derived neointima as either a homogeneous, layer, or heterogeneous pattern. ISR tissue

morphology was assessed to document lipid plaque, ruptured plaque, calcified plaque, nodular calcification, cholesterol crystal, thrombus, microvessel and peri-strut low intensity area (PLIA).

**RESULTS** In patient with HD group, calcified plaque (38.8% vs 10.6%  $p=0.003$ ), nodular calcification (16.7% vs 0%  $p<0.001$ ) and thrombus (22.2% vs 6.5%  $p=0.043$ ) were observed significantly higher rate than non-HD group (Table).

	HD (n=18)	non-HD (n=115)	p-value
Homo/layer/ hetero, n (%)	2 (11)/ 1 (6)/ 15 (83)	24 (21)/ 22 (19)/ 69 (60)	0.103
Lipid neointima, n (%)	4 (22)	32 (28)	0.429
Ruptured plaque, n (%)	1 (6)	7 (6)	0.704
Calcified plaque, n(%)	7 (39)	11 (10)	0.003
Nodular calcification, n(%)	3 (17)	0 (0)	<0.001
Thrombus, n (%)	4 (22)	7 (6)	0.043
Microvessel, n (%)	7 (39)	27 (23)	0.136
Cholesterol crystal, n(%)	2 (11)	5 (4)	0.246
PLIA, n (%)	7 (39)	57 (50)	0.399

**CONCLUSION** Calcified plaque, nodular calcification and thrombus were more frequently observed in patient with HD. These tissue character may lead to the adverse lesion outcome after repeat revascularization to ISR in HD.

**CATEGORIES IMAGING:** Imaging: Intravascular

**TCT-96**

Abstract Withdrawn



**HEMODYNAMIC SUPPORT**

Abstract nos: 97 - 100

**TCT-97**

**Culprit lesion versus multi-vessel intervention in patients with cardiogenic shock complicating myocardial infarction: Incidence and outcomes from The London Heart Attack Group**



Krishnaraj Rathod,<sup>1</sup> Sudheer Koganti,<sup>1</sup> Ajay Jain,<sup>1</sup> Charles Knight,<sup>1</sup> Anthony Mathur,<sup>1</sup> Alexander Sirker,<sup>1</sup> Constantinos O'Mahony,<sup>1</sup> Andrew Wragg,<sup>1</sup> Daniel Jones<sup>1</sup>  
<sup>1</sup>Barts Heart Centre, St. Bartholomew's Hospital, Barts Health NHS Trust, London, United Kingdom

**BACKGROUND** Despite advances in technology patients with Cardiogenic Shock (CS) presenting with ST-segment myocardial infarction (STEMI) have a poor prognosis with high mortality rates. A large proportion of these patients have multi-vessel coronary artery disease, the treatment of which is still unclear. We aimed to assess the current trends in management of CS patients with multi-vessel disease (MVD), particularly looking at the incidence and outcomes of multi-vessel (MV) intervention compared to culprit vessel (CV) only intervention in a large contemporary cohort of patients undergoing percutaneous coronary intervention (PCI) for STEMI.

**METHODS** We undertook an observational cohort study of 21,210 STEMI patients treated between 2005 and 2015 at the 8 Heart Attack Centres in London, UK. Patients' details were recorded at the time of the procedure into local databases using the British Cardiac Intervention Society (BCIS) PCI dataset. 1058 patients presented with CS and MVD. Primary outcome was all-cause mortality at a median follow-up of 4.1 years (IQR range: 2.2-5.8 years).

**RESULTS** 497 patients underwent multi-vessel intervention during primary PCI for CS with stable rates over time. Those patients undergoing MV intervention were more likely to be male, hypertensive and more likely to have poor LV function compared to the CV intervention group. Although crude, in hospital MACE rates were similar (40.8% vs 36.0%,  $p=0.558$ ) between the two groups. Kaplan-Meier analysis demonstrated no significant differences in mortality rates between the two groups (53.8% multi-vessel intervention vs 46.8% culprit vessel intervention,  $P=0.252$ ) during the follow-up period. After multivariate cox analysis (HR: 0.73 95% CI: 0.54-0.98) and the use of propensity matching (HR: 0.85 95% CI: 0.64-0.99) multi-vessel intervention was associated with reduced mortality.