who were referred for conventional invasive coronary angiography. Patients were eligible if they were >18 years of age. Patients with atrial fibrillation, contraindication to iodinated contrast agents, and serum creatinine values >1.4 mg/dl were excluded.

Coronary angiography was performed using standard 6Fr coronary catheters through trans-femoral or trans-radial approach. Coronary angiograms were evaluated by 2 experienced, independent observers. Coronary arteries were segmented according to guidelines of the American Heart Association 18 (modified 16-segment model, with segment 17 being intermediated branch of the left coronary artery). 21 DTB (door to balloon) time was measured. To reduce DTB time, we perform diagnostic angiography with IL-4.0 guiding catheter (Heartrail, Terumo Corporation, Tokyo, Japan) because we can switch to the primary PCI immediately if successful BMV (more than 50% reduction in baseline gradient) in 1294 (94%) subjects and partially successful BMV (20-50% reduction in baseline gradient) in 105 (6%) subjects. BMV failed in 51 patients. Mitral regurgitation (MR) was observed in 76 patients (3.8%). But acute severe mitral regurgitation requiring mitral valve replacement was noticed in 26 (1.79%) patients. On univariate analysis female sex, age >40 years, eccentric valve calcification and Wilkin’s score > 10 were more frequent in patients who developed acute MR. Moderate MR occurred in 372 (55%) patients and mild MR in 41 patients (2.81%). Cardiac tamponade occurred in 19 patients (1.23%). Mild pericardial effusion was seen in 26 patients and BMV was deferred in the three of these patients. New onset atrial fibrillation was encountered in 14 (1.08%) patients during and immediately after BMV. Five patients (0.3%) developed cerebrovascular accident with significant neurological deficits following balloon dilation, which recovered gradually, and one patient had a transient ischemic attack. Coiled wire got detached in the left atrium in one patient. To prevent this we used stentless valve implantation. One patient with severe RF dysfunction died on table. Another patient died a week after failed BMV. Two patients died within a month of the procedure due to non-cardiac illness. Vascular complications occurred in 16 (1.1%) with retroperitoneal hematoma in one patient and 12 patients having groin hematoma. Femoral AV fistula developed in one patient, which required prolonged local compression. 2 patients had profounda artery pseudo aneurysm managed with local embolization.

CONCLUSION The study shows excellent 30-day outcomes for balloon mitral valvuloplasty with mortality rate of 0.1%. Major morbidities were acute severe MR (1.79%), cardiac tamponade (1.23%) and vascular complications (1.1%). The occurrence of Atrial arrhythmias and major strokes were noted at 1% and 0.3% respectively.

TCTAP A-178
Primary PCI with “Single” Catheter
Sho Torii, Yuji Ikari
Tokai University School of Medicine, Japan

BACKGROUND The benefit of primary percutaneous coronary intervention (PCI) for acute ST segment elevation myocardial infarction (STEMI) is well documented and is closely tied to the door to balloon (DTB) time. To shorten the DTB time, we perform diagnostic angiography with IL-4.0 guiding catheter (Hearttrail, Terumo Corporation, Tokyo, Japan) because we can switch to the primary PCI immediately following the full coronary angiogram with a single catheter.

METHODS We studied consecutive 31 STEMI patients who underwent primary PCI at our hospital from November 1st 2013 to November 15th 2014. All patients were radial artery approach and the patients with shock vital were excluded. Eight patients were performed diagnostic angiography with IL-4.0 (IL group), and other 23 patients were performed with JL-4.0, and JR-4.0 (standard group). The cath lab to first device time was calculated.

RESULTS The cath lab to first device time was significantly faster in IL group compared with standard group (19.5 min vs. 38.3 min, p < 0.0001).

CONCLUSION For STEMI patients, IL-4.0 catheter angiography shortens the DTB time and may improve the patients’ outcome.