deceleration time (p<0.001), lower subendocardial systolic wave velocity (p<0.001), lower positive component of subendocardial isovolumetric contraction wave velocity (p<0.001), and subendocardial isovolumic relaxation wave velocity (p<0.001), higher dyssynchrony index (p<0.001) and higher E/Ea ratio (p<0.001). Multivariate analysis revealed that Tei index (P=0.04), Subendocardial IVrA (P=0.001), Subendocardial IVrA and Subendocardial IVrA waves can reliably predict adverse LVR.

**Conclusions:** In patients with anterior STEMI treated by primary PCI, LV systolic dyssynchrony, Tei-index, E/Ea ratio, Subendocardial IVcA and Subendocardial IVrA waves can reliably predict adverse LVR.

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**CRT-121**

**Primary Percutaneous Coronary Intervention in Nonagenarians with ST-Segment Elevation Myocardial Infarction: Temporal Trends and In-Hospital Outcomes:**

**Results From the Korea Acute Myocardial Infarction Registry**

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**Background:** Data regarding the outcomes of primary percutaneous coronary intervention (PCI) for ST-segment elevation myocardial infarction (STEMI) in nonagenarians are very limited.

**Methods and Results:** We used data from the Korea Acute Myocardial Infarction Registry (KAMIR: from November 2005 to January 2008) and Korea Working Group on Myocardial Infarction (korMI: from February 2008 to May 2010). During this period, the proportion of nonagenarian STEMI patients was increased more than three times (0.6% in KAMIR vs. 1.35% in korMI), while, the primary PCI use rate increased slightly (42.5% in KAMIR vs. 63.3% in korMI, p = 0.070). We identified 84 eligible study patients who underwent primary PCI within 12 hours from symptom onset. Mean age was 92.3 years and 63.1% were women. The final Thrombolysis In Myocardial Infarction (TIMI) flow 3 was achieved in 84.5% of patients (75.0% in KAMIR vs. 87.5% in korMI, p = 0.120). The overall in-hospital mortality rate was 21.4% (25% in KAMIR vs. 15% in korMI, p = 0.091). Other overall in-hospital outcomes including cardiogenic shock, recurrent myocardial infarction, stroke, acute renal failure and major bleeding were occurred in 14.3%, 1.2%, 1.2% and 0%, respectively. Stepwise logistic analysis identified 2 independent predictors of in-hospital mortality: final TIMI < 3 (odds ratio 13.7, 95% confidence interval 3.2 to 91.0, p < 0.001) and cardiogenic shock during hospitalization (odds ratio 6.7, 95% confidence interval 1.5 to 30.3, p = 0.013).

**Conclusions:** Nonagenarian STEMI patients have been increasing rapidly. Despite the primary PCI may be an effective and safe treatment strategy for these patients, its use rate did not increase. To improve survival, primary PCI should be considered actively for carefully selected patients.

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**CRT-122**

**Radial Access for Primary Percutaneous Coronary Intervention: Single Centre Experience**

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**Background:** Performing percutaneous coronary intervention (PCI) through radial access has been demonstrated to be beneficial. Primary PCI (PPCI) is the standard of care in those presenting with ST elevation myocardial infarction (STEMI). Emerging data does suggest that performing PPCI through radial access reduces morbidity and mortality, but still many centres perform PPCI through femoral access, as there is concern that radial access may result in longer procedural time, especially in those with cardiogenic shock and has some chance of access failure, requiring femoral access.

**Methods and Results:** We are one of the tertiary cardiac hospitals in the Wales, UK and a default radial centre. Since beginning of the 24/7 STEMI program from early 2012, in the first 18 months we have performed PPCI in 773 patients, with age ranging from 25 to 101 years. Ninety two patients presented in cardiogenic shock. Out of all patients, 94.6% patients underwent PPCI through radial access (96.9% in patients without cardiogenic shock and 77.8% in those with cardiogenic shock). Patients requiring IABP insertion, the procedure was counted as through femoral access.

For all patients, mean door to balloon time of 49.8 minutes (door to cath-lab time of 23.8 minutes and cath-lab to balloon time of 25.9 minutes) and call to balloon time of 115.1 minutes was achieved. There was no significant difference in door to balloon time between those with / without cardiogenic shock, but call to balloon time was significantly high in those presenting in cardiogenic shock.

In-hospital mortality was 1.5% in those without cardiogenic shock and 23.9% in those with cardiogenic shock. None of the patients who underwent PPCI through radial access had any bleeding complication. Main factors requiring femoral vascular access in our centre were; poor radial access, cardiogenic shock and previous bypass surgery, even though majority of those with previous CABG underwent PPCI through left radial access.

**Conclusion:** Radial access for performing PPCI is safe and effective, even in majority of those presenting with cardiogenic shock or previous CABG. Door to balloon time is well within recommendation period as per the guidelines. Bleeding complication is markedly reduced. Radial access should be the default route to perform PPCI.

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**CRT-123**

**The Association of Urine Nicotine Level with the Platelet Response to Clopidogrel**

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**Background:** Cigarette smoking induces CYP1A2 and may, therefore, enhance the conversion of clopidogrel to its active metabolite. Until now, there were no reports of clopidogrel response to smoking status according to urine nicotine level.

**Methods:** We consecutively enrolled 100 patients treated with coronary stenting and administered 75mg clopidogrel as maintenance dose. All patients were allocated into current smokers (CS, n=50) and nonsmokers (NS, n=50) based on the questionnaire and results of nicotine urine stick test (NickCheckTM, Mossman associates, Blackstone, MA, USA). Platelet aggregation was assessed by the VerifyNow P2Y12 assay (accumetrics Inc., San Diego, California).

**Result:** There was no significant difference of platelet reactivity unit (PRU) and platelet inhibition% (PI %) according to smoking status (CS vs NS: 48 ± 10 vs 59 ± 11 of PRU, 36 ± 23 vs 38 ± 20 of PI%, respectively, p>0.05). An analysis of variance demonstrated no significant differences of PRU and PI % in 3 groups (A group: urine nicotine level 0 vs B group:1 to 6 levels of C group: > 6 level; 180 ± 70 vs 192 ± 76 vs 182 ± 73 of PRU; 38 ± 20 vs 34 ± 21 vs 39 ± 24 of PI%, respectively, p>0.05). Ven, as 219 of PRU was regarded as the cut-off value of high platelet aggregation, the rate of PRU was 62% (20 vs 34 of PI%, respectively, p>0.05).

**Conclusion:** Nicotine level in urine and smoking status are not associated with platelet aggregation on the contrary to previous studies. Measurement of nicotine or its metabolites might be needed for the future studies of evaluating the relationship objectively between smoking and clopidogrel response.