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## Acute Coronary Syndromes

### LONG TERM VARIATION OF HIGH ON TREATMENT PLATELET REACTIVITY AFTER AN ACUTE MYOCARDIAL INFARCTION

Poster Contributions

Poster Hall B1

Monday, March 16, 2015, 9:45 a.m.-10:30 a.m.

Session Title: Conquering the Platelet and More for Better Outcomes

Abstract Category: 2. Acute Coronary Syndromes: Clinical

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**Background:** High on clopidogrel treatment Platelet Reactivity (HPR) has been identified as a risk factor for new ischemic events after an acute myocardial infarction (MI). Little is known about variation of HPR over time.

**Methods:** We used Multiplate®, a whole blood impedance aggregation method, to assess ADP-stimulated platelet reactivity on three occasions, 3 and 8 days, and 6 months, after clopidogrel loading, in patients with acute (MI). All patients were treated with dual antiplatelet therapy including clopidogrel. A value above 468 AU\*min was regarded as HPR.

**Results:** We included 77 patients, mean age 77 years, 60 % with STEMI and 74 % men. Abciximab was administered to 45 patients. Median aggregometry value was significantly higher day 8 compared to day 3 (281 vs 159 AU\*min,  $p<0.001$ ) but not from day 8 to 6 months (281 vs 288 AU\*min,  $p=0.67$ ). The proportion of HPR was higher day 8 compared to day 3 (16% vs 8%,  $p<0.001$ , but there was no significant change from day 8 to 6 months (16% vs 21%,  $p=0.24$ ). In spite of this a substantial proportion of the patients changed HPR status between day 8 and 6 months, 10 % changed from HPR to low platelet reactivity (LPR) 16 % LPR to HPR. (Fig 1)

**Conclusion:** In spite of a similar rate of HPR at 8 days and 6 months after loading dose of clopidogrel, more than 1/4 of the patients change HPR status from high to low or low to high platelet reactivity. This finding may be important for the value of individual decision making based on a single HPR assessment.

