

Figure 1: ADP (adenosine diphosphate) and Figure 2: TRAP (thrombin receptor agonist peptide) induced aggregation as measured by MEA (multi electrode aggregometry). Each agonist response in ALL patients (left panel), those with HTPR (centre panel), and those without HTPR (right panel). Aggregation units calculated as area under the curve after 6 minutes (impedence:time). Abbreviations: HTPR: High on treatment platelet reactivity, PCI: percutaneous coronary intervention

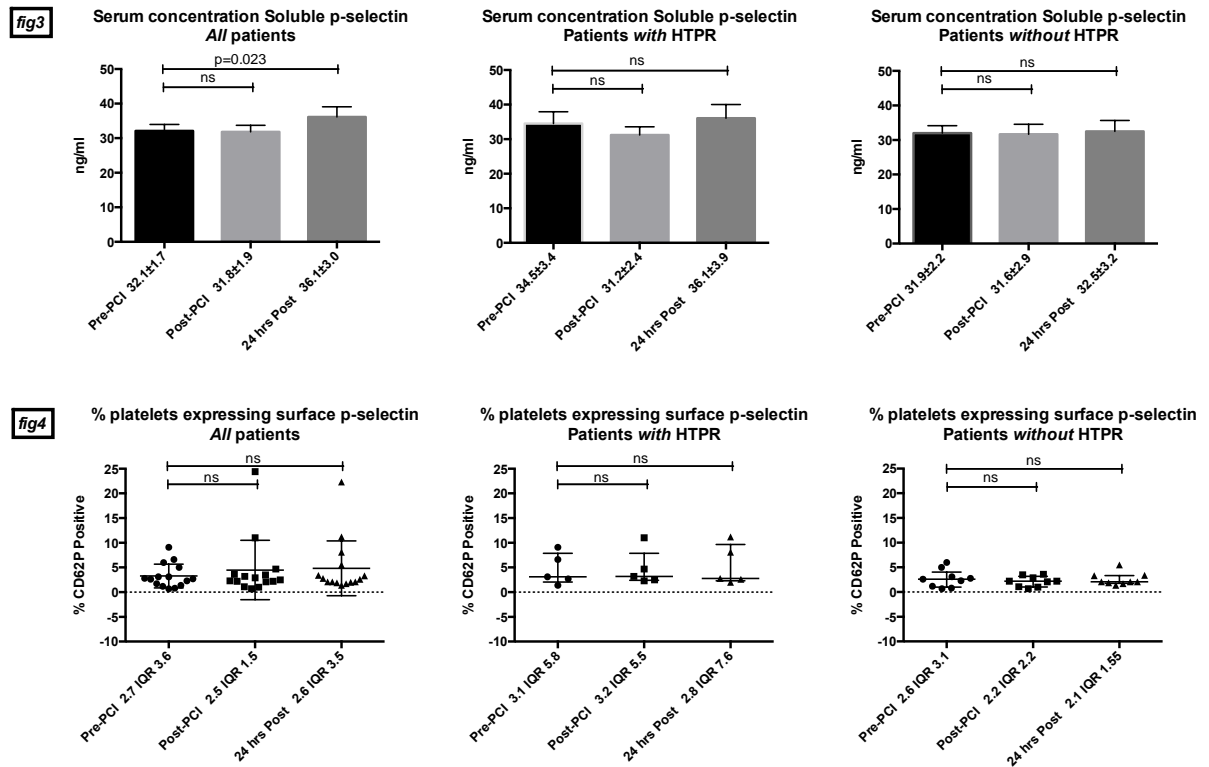


Figure 3 (top panel): Soluble p-selectin concentration pre, post and 24hrs post-PCI showing ongoing p-selectin secretion throughout the 24hr period, mean \pm SEM.

Figure 4 (bottom panel): Platelet bound p-selectin expressed as percentage of platelets that were CD62P positive median (IQR) (bottom row).

All patients (left column), those with HTPR (middle column) and those without HTPR.

Abbreviations: HTPR: High on treatment platelet reactivity, PCI: percutaneous coronary intervention, CD62P: p-selectin protein present on platelet membrane

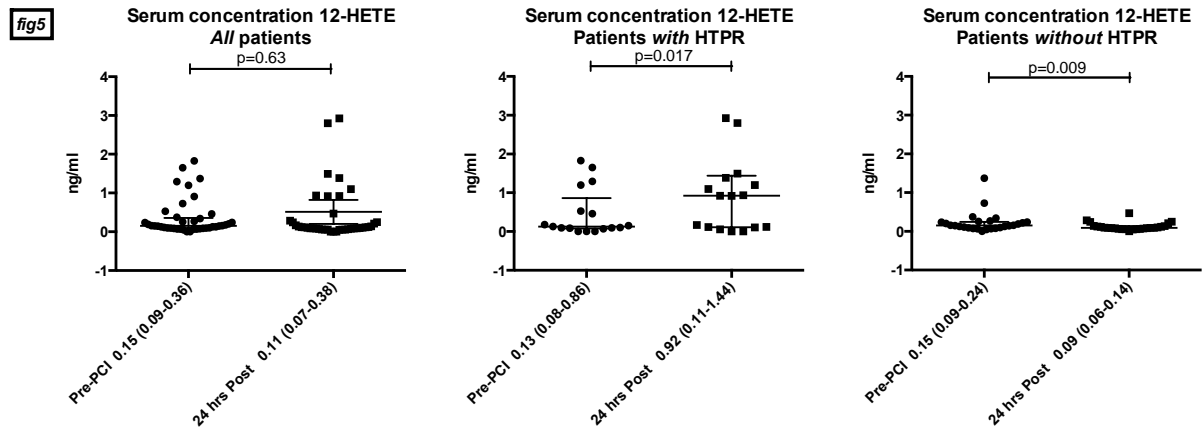


Fig 5: Serum 12-HETE concentration in All patients (left panel), HTPR patients (middle panel) and patients without HTPR (right panel). Data points are pre-PCI and 24 hrs post-PCI. Data expressed as median (IQR), ng/ml. Wilcoxin test used throughout. Abbreviations: 12-HETE: 12- Hydroxyeicosatetraenoic acid, HTPR: High on treatment platelet reactivity, PCI: percutaneous coronary intervention

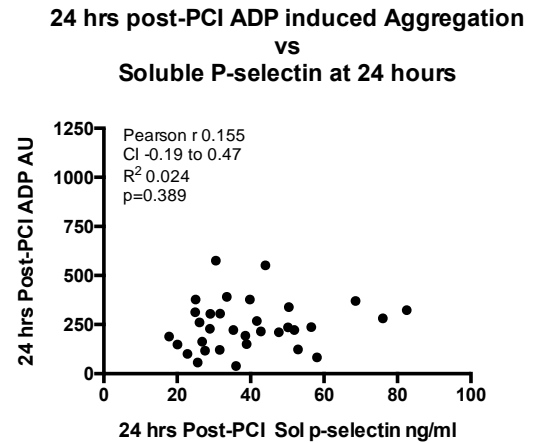
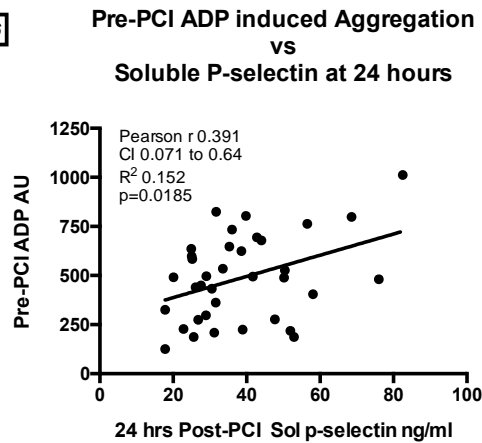
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Figure 6:

Correlation between pre-PCI ADP induced aggregation and p-selectin measured at 24hrs post-PCI (left panel), and 24hr post-PCI ADP induced aggregation and p-selectin measured at 24hrs (right panel). Pre-PCI ADP correlates with degree of platelet activation as indicated by soluble p-selectin concentration at 24hrs (Pearson r 0.391, R^2 0.152, $p=0.0185$)

Table 1: Baseline characteristics of patient population including selected paired characteristics at 24 hrs post-PCI

	Pre-PCI	24 hrs post-PCI	p value
n=42			
Age	65.9 ± 12.6		
Male	31 (73.8)		
Haemaglobin g/L	145.7 ± 11.2	139 ± 13.6	0.11
Platelets x 10⁹/L	258.4 ± 71.4	258.7 ± 58.5	0.98
CRP mg/L	4.4 (3.0 – 4.0)		
Creatinine µmol/L	95.3 ± 28.2		
Symptoms to PCI days	5 (5 – 7)		
NSTEMI	42 (100)		
Left ventricular function (EF)	52.7 ± 3.5		
Hypertension	25 (59.5)		
Diabetes	14 (33.3)		
Hypercholesterolaemia	31 (73.8)		
Smoking history	20 (47.6)		
Beta-blocker	32 (76.2)		
Calcium channel blocker	6 (14.3)		
ACE Inhibitor	35 (83.3)		
Statin	36 (85.7)		
Clopidogrel	42 (100)		

Baseline clinical and laboratory characteristics of study population. Both pre-PCI and 24 hr post-PCI haemoglobin and total platelet count are included with no significant difference seen between either of these values. Abbreviations: PCI - percutaneous coronary intervention, CRP – C reactive protein, NSTEMI – non-ST-elevation myocardial infarction, EF - ejection fraction, ACE - angiotensin converting enzyme inhibitor

Table 2: Summary table of key findings for aggregometry, soluble and platelet bound p-selectin (ALL patients)

<i>n</i> =42	Pre PCI (SEM)	Post PCI (SEM)	24hrs post PCI (SEM)	P ^{ANOVA} a/ Pre vs Post PCI b/ Pre vs 24 hr PCI c/ Post vs 24 hr PCI	95% CI of diff
ADP aggregation (AUC)	499.1 ± 46.3	407.6 ± 37.7	269.1 ± 24.6	a/ <i>p</i> >0.05 b/ <i>p</i> =0.0002* c/ <i>p</i> <0.05*	a/ -34.1 to 217 b/ 104.5 to 355.6 c/ 13 to 264.1
TRAP aggregation (AUC)	1000 ± 51.6	869.2 ± 42.1	792.0 ± 41.0	a/ <i>p</i> <0.05* b/ <i>p</i> =0.0002* c/ <i>p</i> >0.05	a/ 0.74 vs 261.4 b/ 114.1 to 302.6 c/ -29.5 to 184.1
Soluble p- selectin (ng/ml)	32.1 ± 1.7	31.8 ± 1.9	36.1 ± 3.0	a/ <i>p</i> >0.05 b/ <i>p</i> =0.0225 c/ <i>p</i> >0.05	a/ -3.7 to 3.7 b/ 0.82 to 10.0 c/ -0.9 to 12.0
% p-selectin +ve plts <i>n</i>=16	2.7 (1.4- 5.0)	2.5 (2.1- 3.6)	2.6 (2.0- 5.5)	a/ <i>ns</i> b/ <i>ns</i> c/ <i>ns</i>	

Row 1 and 2 ADP and TRAP induced aggregation (AU), Row 3 soluble p-selectin (ng), row 4 percentage of platelets expressing p-selectin. Mean ± SD or median (IQR). P^{ANOVA} values with Tukey's multiple comparison (a= Pre-PCI vs Post-PCI, b=Pre-PCI vs Post-PCI). Except were not normally distributed or missing values prevent (Soluble p-selectin).