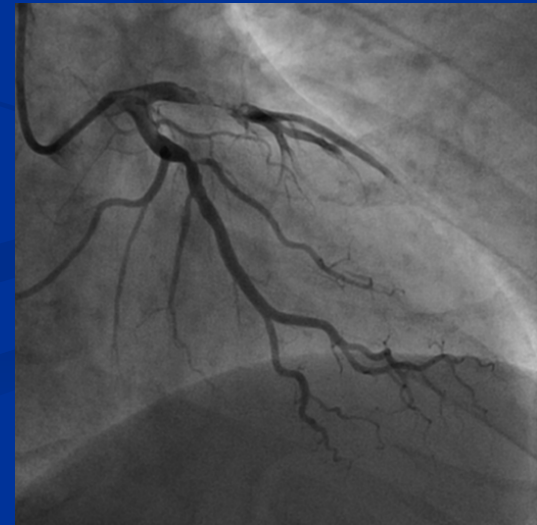


Case #1

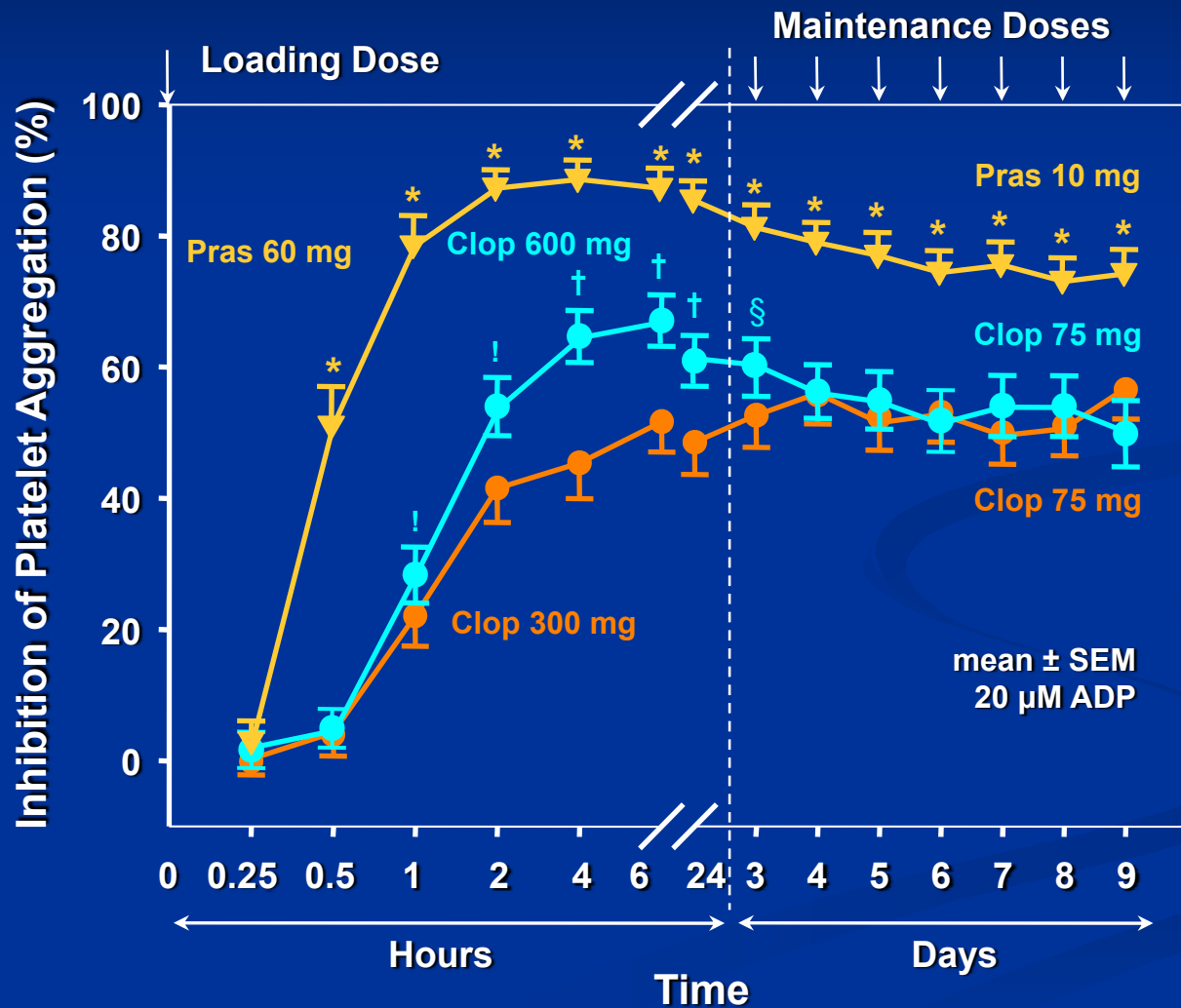
- 62 y/o male admitted with anterior wall STEMI
- Chest pain for 3 hours prior to arrival
- Risk factors: HTN, dyslipidemia
- In the ER receives aspirin, heparin and clopidogrel 600 mg
- Successful PCI performed with aspiration and DES implantation



Questions

- The following day the patient should be treated with:
 1. Clopidogrel 75 mg a day
 2. Clopidogrel 150 mg a day for a week followed by 75 mg a day
 3. Prasugrel 10 mg a day (without any loading)
 4. Prasugrel 30 mg loading followed by 10 mg a day
 5. Prasugrel 60 mg loading followed by 10 mg a day
 6. Ticagrelor 180 mg loading followed by 90 mg bid
 7. Ticagrelor 90 mg bid (without loading)

Prasugrel 60/10 mg vs Clopidogrel 300-600/75 mg in healthy volunteers

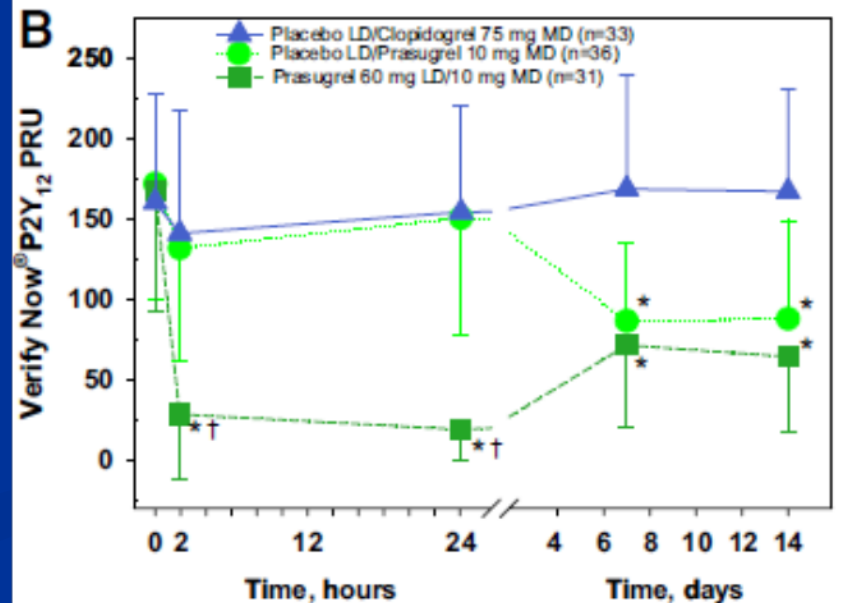
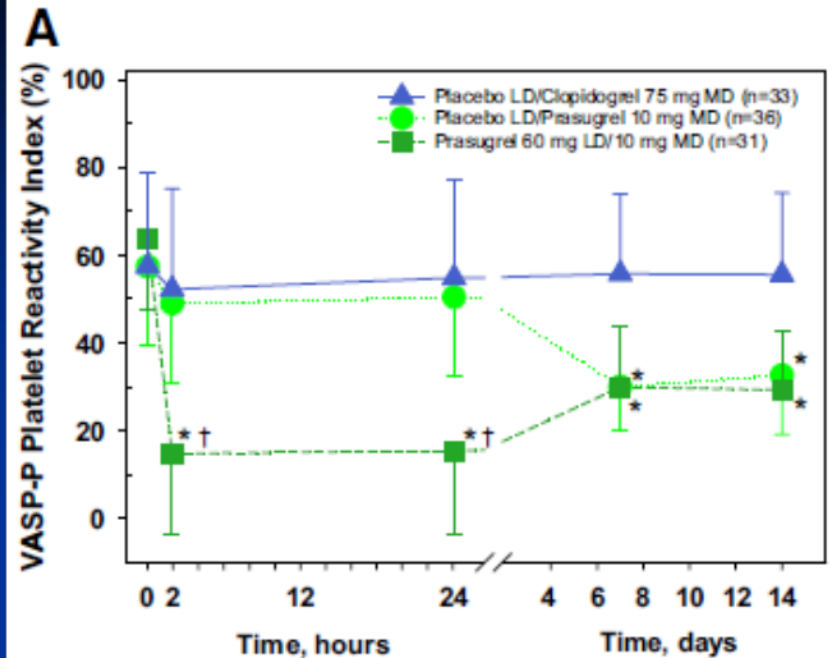


The SWAP study

Switching from
maintenance
clopidogrel (75 mg
daily) to prasugrel in
patients after ACS

100 patients post ACS

Angiolillo et al, JACC 2010



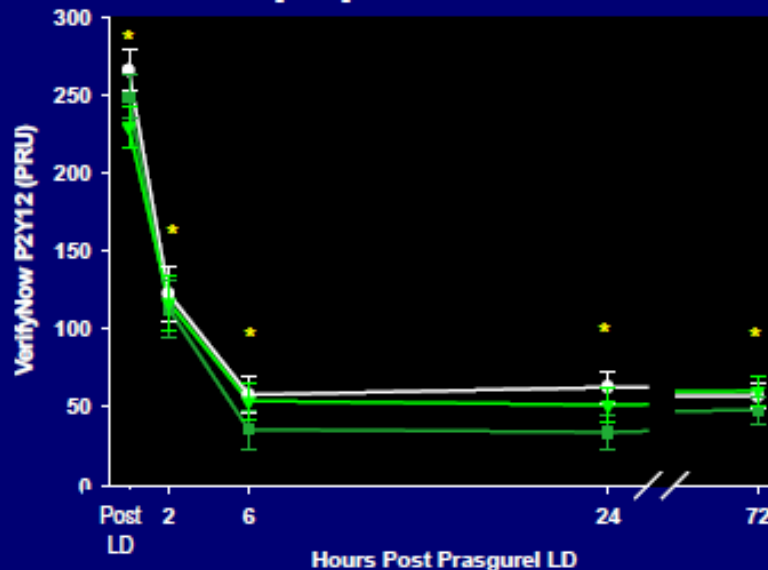
TRIPLET – Switching from clopidogrel loading to prasugrel

TRIPLET
Study

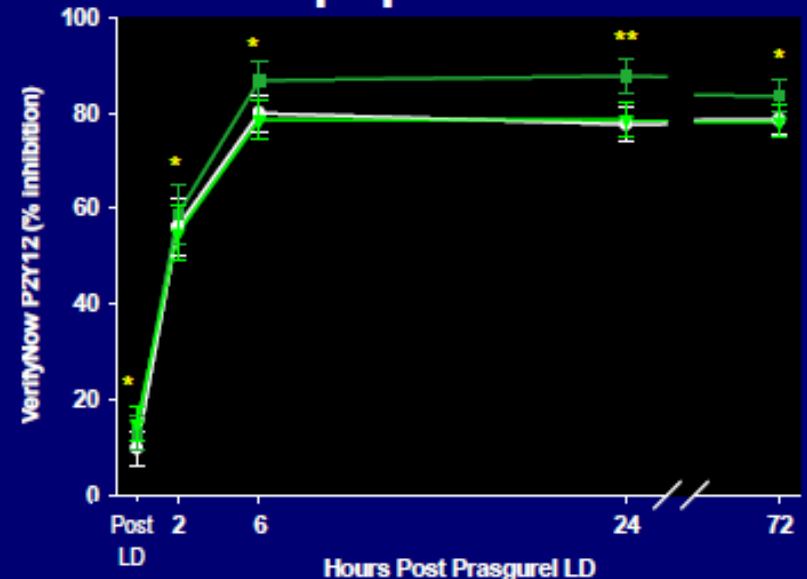
Time Course: Pharmacodynamic Population

Presented at EUROPCR 2012

PRU (LS mean), PD population



% Inhibition (LS mean), PD population



ACS PCI patients

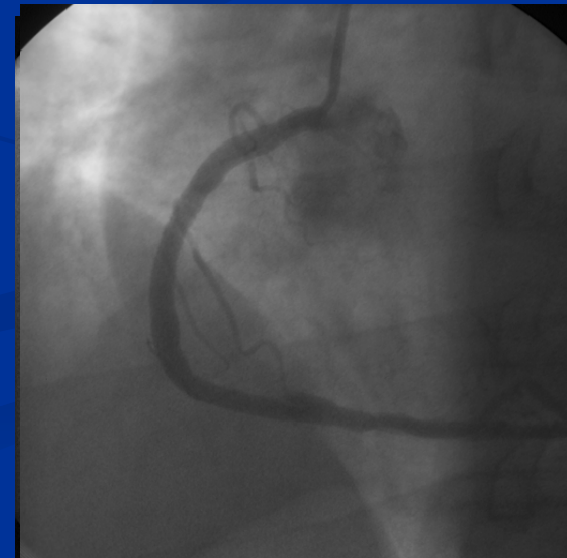
- Placebo and Prasugrel 60 mg/10 mg
- Clopidogrel 600 mg and Prasugrel 60 mg/10 mg
- ▼ Clopidogrel 600 mg and Prasugrel 30 mg/10 mg

*P=NS at each time point vs. placebo/prasugrel 60 mg, **P=0.049 between the placebo/prasugrel 60 mg group and the clopidogrel 600 mg/prasugrel 60 mg group
Euro PCR. 2012

LD=Loading Dose, LS=Least Square, PD=Pharmacodynamic, PRU= P2Y12 Reaction Units

Case # 2

- 68 year old male
- Cardiac risk factors: HTN, dyslipidemia, h/o smoking
- Admitted with acute CP for 2 hrs.
- ECG shows 2 mm ST \uparrow in II, III, AVF
- Mild LV dysfunction per echo
- Undergoes primary PCI to mid RCA with implantation of 2 DES
- Treated with aspirin + prasugrel
60 mg loading/10 mg maint.



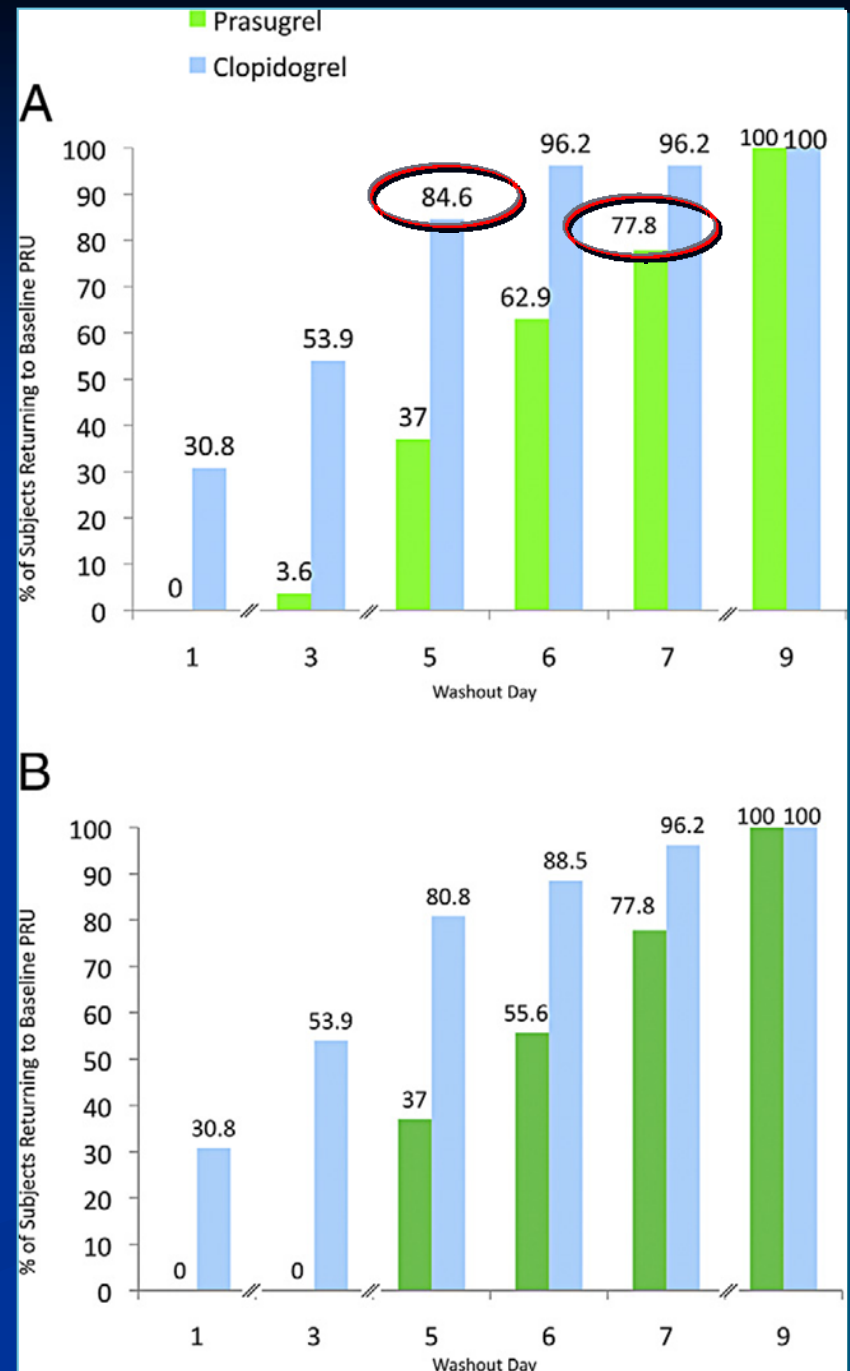
CASE # 2 – cont.

- After 1.5 months complains of weakness and gradually develops lower GI bleeding (dark bloody stools)
- Patient is hospitalized
- Hemodynamically he is stable
- Hg drops from 12.5 to 8.9 gm/dl
- Colonoscopy reveals suspected Ca of colon in the descending colon (later confirmed by biopsy)

Questions

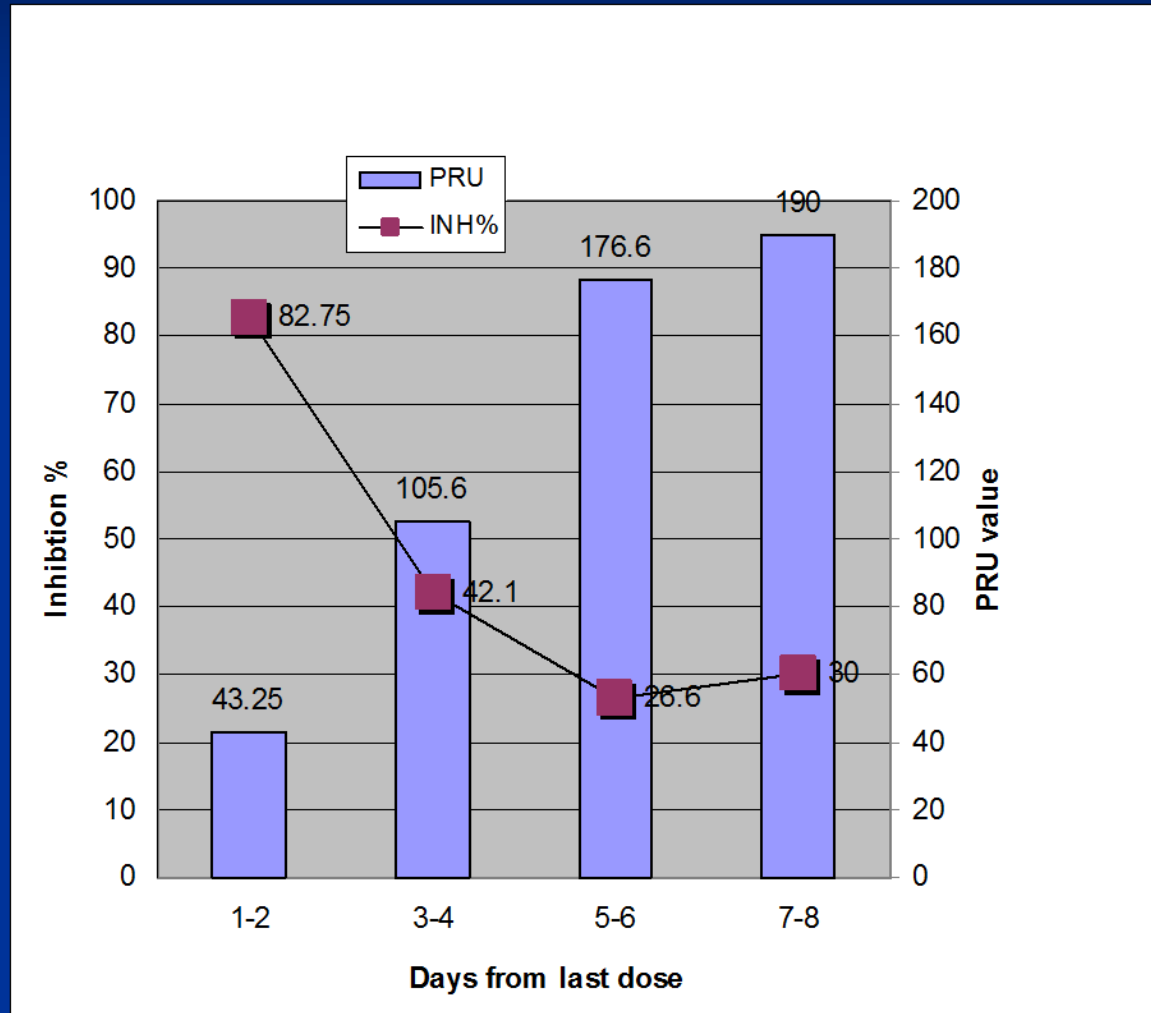
- Should prasugrel be discontinued? When?
- Should the patient be switched to clopidogrel? (if so for how long prior to surgery?)
- Should aspirin be discontinued? If so for how long?
- Timing of surgery? d/c of antiplatelet drugs (which?) before surgery? Renew which drugs after surgery?

Recovery of Platelet Function After Discontinuation of Prasugrel or Clopidogrel Maintenance Dosing in 54 Aspirin-Treated Patients With Stable Coronary Disease



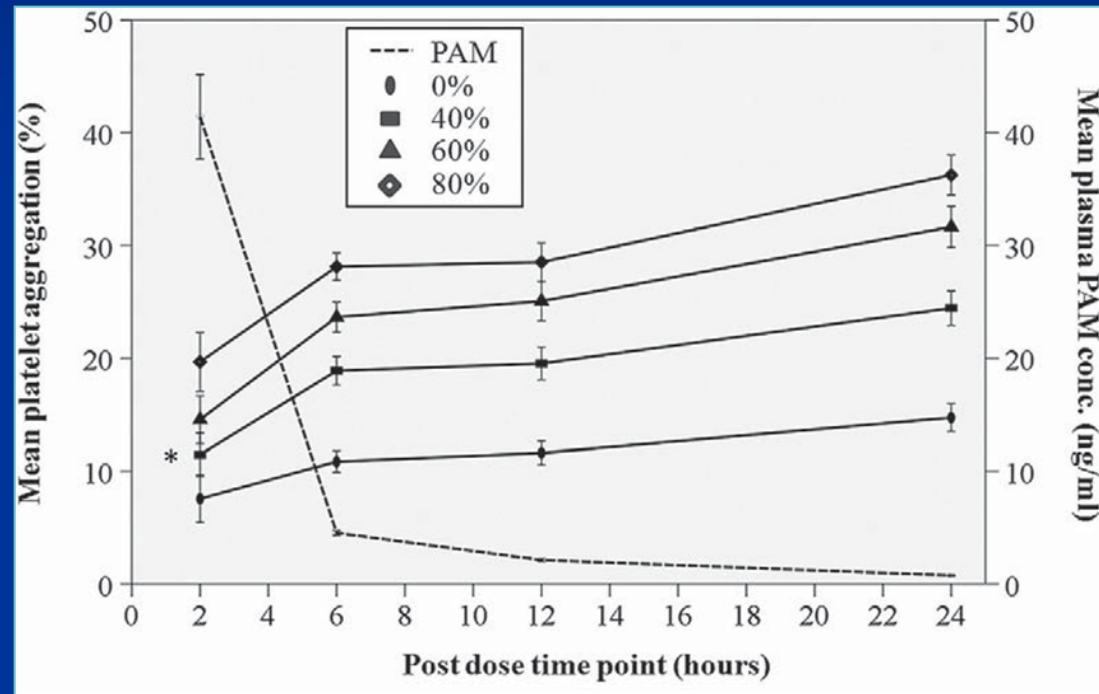
Recovery of platelet function after prasugrel d/c

- 10 patients with STEMI who received prasugrel 60 mg loading and were transferred for CABG, tested almost daily by VerifyNow P2Y12



Overcoming prasugrel effects by adding fresh platelets ex-vivo

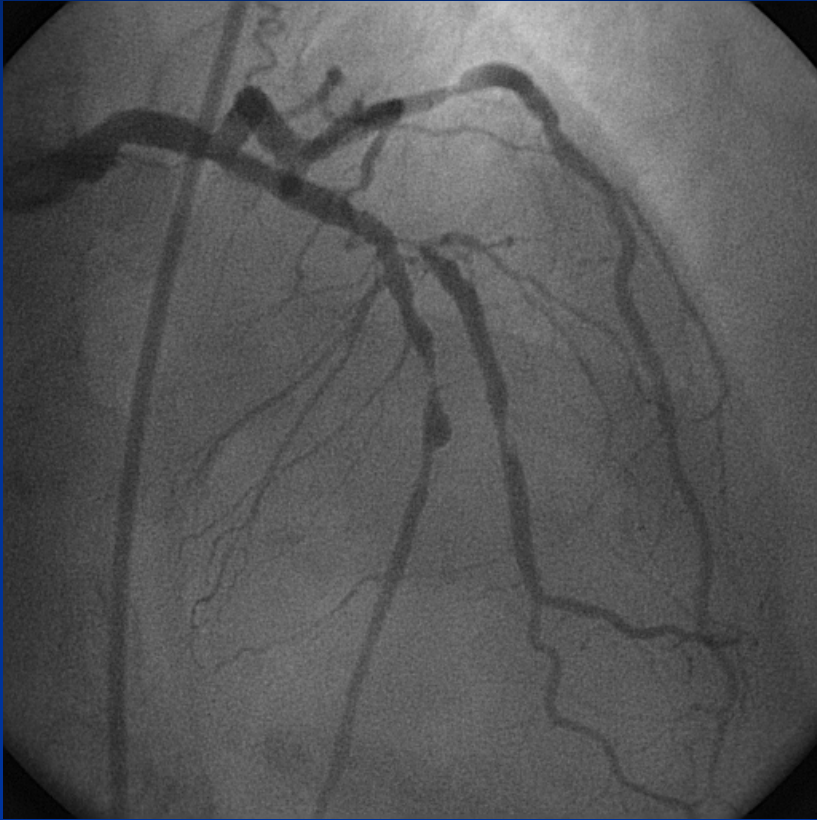
- Healthy subjects on ASA took 60 mg prasugrel
- After baseline testing with platelet aggregation (ADP 20 μ M). Fresh, concentrated donor platelets were added ex vivo to subject's blood after 2h, 6h, 12h and 24h, **in volumes that raised the blood platelet counts by 40%, 60% & 80%.**



Significant functional recovery with platelet transfusion can be achieved by 6 hrs. However, full platelet function restoration is not feasible within 24h even with many platelet infusions.

Case #3

- 70 year old woman
- Cardiac risk factors: diabetes, dyslipidemia, family hist.
- Diabetic nephropathy – Cr = 1.4-1.6 mg/dl
- Weighs 58 kg
- Admitted with NSTEMI – several episodes of typical CP at rest + troponin of 0.3
- ECG – T wave inversion V3 – V6
- Good LV function per echo
- Angio: long lesion in mid LAD, bifurcation with Diag1



Bifurcation T stenting using 3 DES

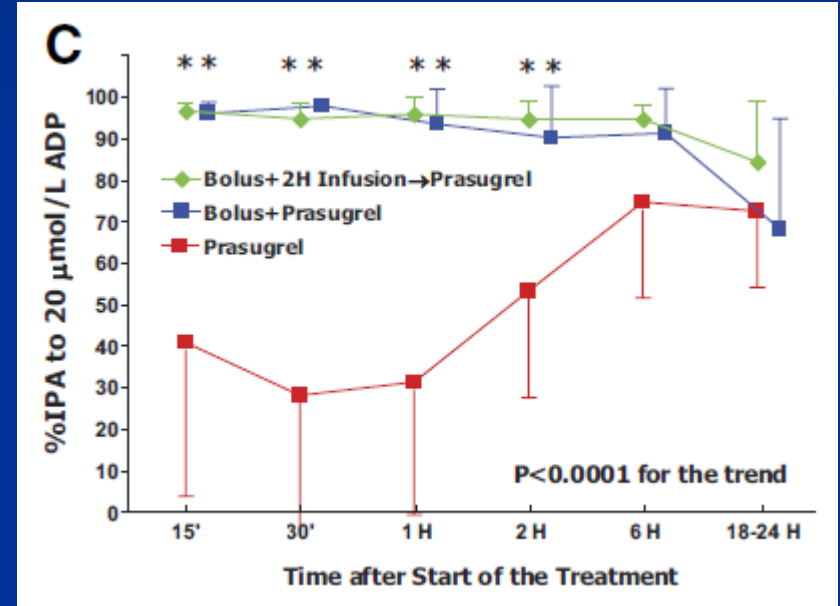
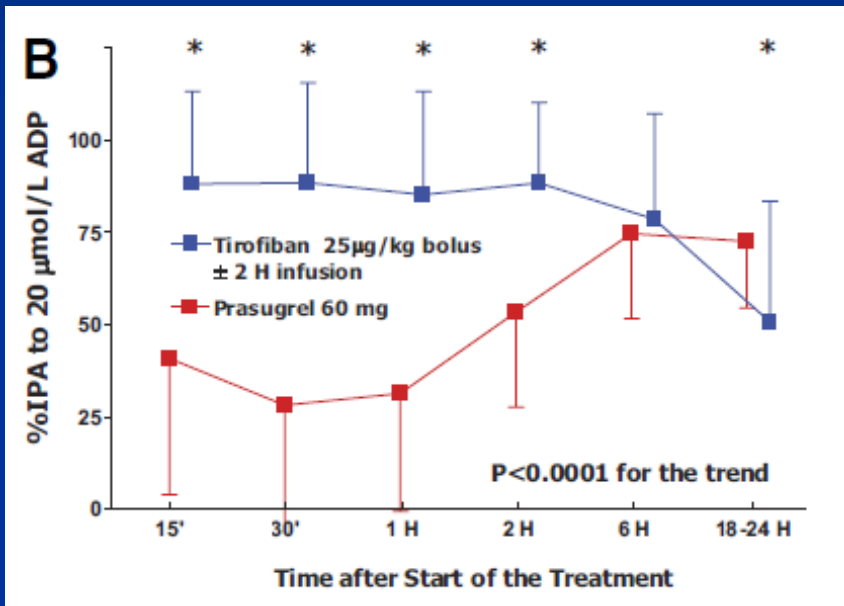
Questions

- Which P2Y12 inhibitor (in addition to aspirin) should the patient be treated with peri-PCI?
 1. Clopidogrel 600 mg loading dose followed by 150 mg daily for a week and then 75 mg daily
 2. Clopidogrel 300 / 600 mg loading dose followed by 75 mg daily
 3. Prasugrel 60 mg loading dose followed by 10 mg daily
 4. Prasugrel 60 mg loading dose followed by 5 mg daily
 5. Ticagrelor 180 mg followed by 90 mg bid

THANK YOU



FABOLUS-PRO study



100 pts with STEMI randomized to prasugrel or tirofiban bolus \pm maint. or \pm prasugrel

Ticagrelor - Onset / Offset Study, IPA to 5uM ADP

