

A Platelet Reactivity Time (PRT) which is a shear activated to platelet plug formation. The principle of that test is that a disposable PRT cartridge contains a capillary tube for blood intake, a sample distribution channel, and 2 test channels. The test channels contain a high shear restriction zone. When filled, the cartridge is placed in the instrument, and 16 uL of blood is drawn into the 2 test channels. The coil of the channels is 0.25 x 0.25 mm with the gap in the coil being 0.09 mm. A peak velocity of 17.1 mm/s. generates an average shear rate of 1500 sec⁻¹. As platelets aggregate the pressure increases, and at 9 mm Hg the test is stopped.

Platelet Reactivity - Results at Your Fingertips. A test of shear induced platelet function

The test:

- Blood is introduced from a fingerprick sample directly into the cartridge through the use of a built-in capillary tube.



- The blood sample is pumped forwards and backwards through restrictions, which activates the platelets.
- The activated platelets aggregate and adhere to a coil, slowing blood flow and eventually stopping flow.

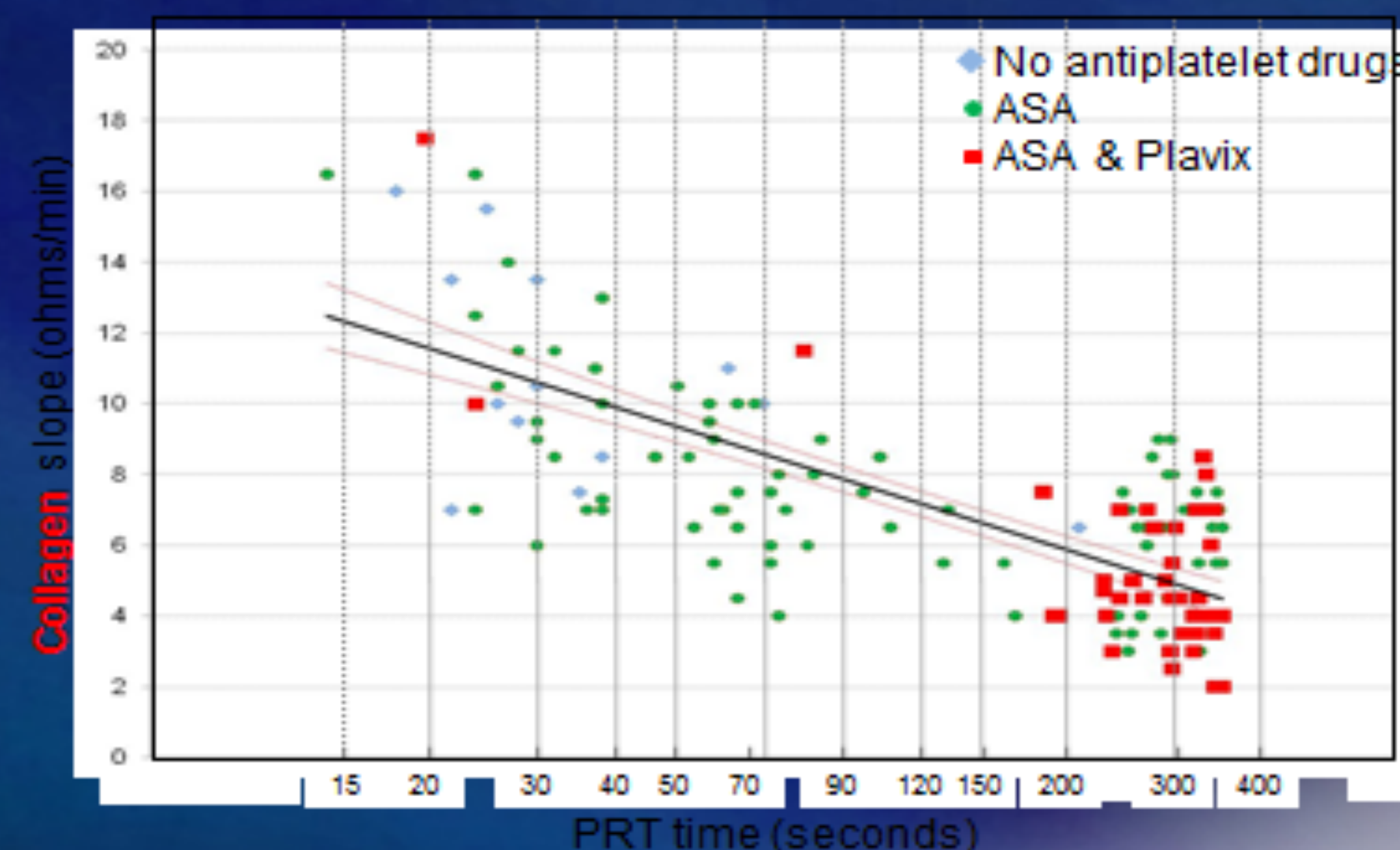


The Placor PRT test has been modified to have an increased shear zone of 6000 inverse seconds. This modification provides enhanced discrimination to identify patients at risk of bleeding.

Advantages:

- 1) Can discriminate between both hyper and hypo responders
- 2) only technology that can test samples from finger stick
- 3) provides results in minutes

Patient Study PRT versus Collagen Aggregation, by Drug



Results from a 150 patient study demonstrate the effect of various anti platelet agents on PRT times. Patients on dual antiplatelet therapy of aspirin plus clopidogrel have platelet reactivity times trending over 200 seconds

