Poster D-61. Wednesday, July 28, 2:00 to 4:30 PM, Anaheim Convention Center.

Comparison of the Detection of P2Y12-receptor Blockade in Preangiocath Subjects with cardiovascular Disease by Light-transmittance and Whole-blood Aggregometry, Verify Now® P2Y12 and INNOVANCE® PFA P2Y*

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The purpose of this study was to compare the results of the INNOVANCE® PFA P2Y*, a new test cartridge for the PFA-100® system to those obtained by light transmittance (LTA) with 20 mcM ADP and whole blood aggregometry (WBA) using 5 and 10 mcM of ADP, and the Verify Now® P2Y12 cartridge by Accumetrics.
Blood was collected with 3.2% and 3.8% sodium citrate from 102 subjects with cardiovascular disease after receiving clopidogrel (6 to 24 hours post loading with 300 or 600 mg) or after 7 days of 75 mg daily. P2Y12 receptor blockade was detected with INNOVANCE® PFA-P2Y* using a cut-off of >106 sec. Only the INNOVANCE system was tested with 3.2 and 3.8% sodium citrate. All others were tested with 3.2% sodium citrate only. Cut offs for other systems were VerifyNow >20%; WBA 5 <5 ohms; WBA 10 <8 ohms; LTA <50% amplitude.
The following results indicate the comparison of methods for detection of the influence of clopidogrel: Sensitivity (%): P2Y 3.2%=59%; P2Y 3.8%=95%; VerifyNow=60%; WBA 5µM=88%; WBA 10 µM=89%; LTA 20 µM=72%. The total concordance (%) for this set of post drug patients was computed and the results are as follows: P2Y 3.2% to VerifyNow=71%; to WBA 5 and 10µM=64 and 65% respectively; to LTA 20µM=69%. P2Y 3.8% to VerifyNow=71%; to WBA 5 and 10µM=90% for both; LTA 20µM=76%. VerifyNow to WBA 5 and 10µM=68 and 67% respectively; LTA 20µM=72% The INNOVANCE 3.8% result of 95% compares favorably with the results obtained in both WBA ADP concentrations. The INNOVANCE 3.2% data compares closely with the VerifyNow cartridge system. Concordance with the Verify Now cartridge system was favorable at 71% for both INNOVANCE sodium citrate concentrations. However, when comparing with WBA the 3.8% citrate results with the INNOVANCE cartridge was 90%. The INNOVANCE PFA-P2Y agrees favorably with other methods for detection for P2Y12-receptor blockade agents.