SENSITIVITY OF APTT FOR LUPUS ANTICOAGULANT DONE BY ACTIN FSL (DADE) AND THROMBOSIL (HEMOLIANCE)
M. Razaq MD, N. Mankan MD, B. Puskur MD, N. Mahajan MD, S. Hussain MD: Department of Medicine, Coney Island Hospital, Brooklyn, NY

Background: Lupus Anticoagulant (LA) are antibodies that interfere with phospholipids in phospholipid based tests such as activated partial thromboplastin time (aPTT), prothrombin time (PT) and dilute Russell viper venom time (DRVVT). No single test is 100% effective in ruling in or out the presence of LA. Actin FSL and Thrombosal are considered relatively LA-sensitive aPTT reagents. But normal aPTT by these reagents does not exclude the presence of LA. LAs don’t inhibit the action of platelet phospholipids, so platelet poor plasma should be used to increase the sensitivity for LA. However in routine coagulation tests laboratories use platelet rich plasma to do aPTT. In our hospital regular laboratory uses Actin FSL (Dade) and special hematology laboratory uses Thrombosal (Hemoliance) to perform aPTT. We test for LA if aPTT remains prolonged on mixing studies or as a part of hypercoaguable work up for patient with thrombotic episodes. We did a retrospective study to see the sensitivity of these tests performed in platelet rich plasma in ruling out LAs. Method: Retrospective chart review of all the patients diagnosed with lupus anticoagulant at Coney Island from February to January 2004. Information regarding patients’ age, sex, laboratory data and history of any thrombo-embolic phenomenon was collected. LA was diagnosed with DRVVT. aPTT in these patients was done as a part of routine coagulation screening on platelet rich plasma. Results: 58 Patients (25 females and 35 males) with age ranging from 26 to 80 years were diagnosed with LA by DRVVT. 57 patients had aPTT done by Actin FSL. 32 of them had elevated aPTT (ranging 24-79.6) with a sensitivity of 56%. 57 patients had aPTT done by Thrombosal. 19 of them had elevated aPTT (ranging 23.7-67) with a sensitivity of 33%. 55 patients had aPTT done by both reagents and 38 of them had at least one elevated aPTT with a sensitivity of 69%. Conclusion: Normal aPTT done on platelet rich plasma as a part of coagulation screening does not exclude the presence of LA. In our study the sensitivity of both the reagents individually as well as combined was very low, although Actin FSL was found to be more sensitive than Hemoliance.