Update of the SSC guidelines for Lupus Anticoagulant testing

Armando Tripodi, Angelo Bianchi Bonomi Hemophilia and Thrombosis Center, Department of Internal Medicine, IRCCS Cà Granda Ospedale Maggiore Policlinico Foundation and Università degli Studi di Milano, Milano, Italy.

The laboratory detection of lupus anticoagulants (LA) is crucial for the definition of the antiphospholipid syndrome as patients with persistent positivity are candidate for long term anticoagulation. Recently the Scientific and Standardization Committee (SSC) of the International Society on Thrombosis and Haemostasis (ISTH) updated the previous guidelines issued in 1995. The diagnostic criteria defined as screening, mixing and confirmatory procedures remained essentially the same. Other features of the guidelines are as follows. Blood should be collected into sodium citrate 0.109 M and test plasmas should be prepared as to minimize the numbers of residual platelets. To this end double-centrifugation is recommended. Locally-determined cut-off values for each procedure are recommended by testing plasmas from 40 or more healthy subjects. The numbers of tests are limited to two and include the dilute Russell viper venom test (dRVVT) and an activated partial thromboplastin time (APTT)-based test, performed with silica as activator and low phospholipids content. Attention has been paid to the recommendation on how to prepare the pooled normal plasma for mixing procedures. For the confirmation of LA, bi-layer or hexagonal phospholipids are recommended. Recommendations have also been issued on patients to be tested and timing of testing. Previous histories of thrombosis and/or pregnancy complications are key issues to make decision on laboratory testing. Blood should be collected before the initiation of any antithrombotic treatments or 1-2 weeks after discontinuation of oral anticoagulants. Results should be preferably reported with a conclusive comment on whether they are or not compatible with the presence of LA.