ECAT LA Testing Results and Practice Implications

Meijer P
ECAT Foundation, Leiden, The Netherlands.

This session will explain the current practice of lupus anticoagulant laboratory testing and the effect on the classification of clinical samples. In 1995 the International Society on Thrombosis and Haemostasis (ISTH) published guidelines for the laboratory testing of lupus anticoagulant. We evaluated whether laboratories participating in the external quality assessment programme for lupus anticoagulant testing of the ECAT Foundation follow this international guideline. As an example we evaluated the results of a survey using a plasma sample of a patient (probably) positive for lupus anticoagulant. In this survey 286 laboratories submitted results. Sixteen per cent of the participants indicated this plasma as lupus negative, 15% as borderline, 21% as probably positive and 48% as (strongly) positive. This heterogeneity in interpretation provided us with the opportunity to evaluate the relationship between the strategy used for lupus testing and the final interpretation of the sample.
Methods and Results: Detailed evaluation of the tests performed showed that 28% of the participants used only one test panel. This is not in agreement with the international guideline. The majority of these participants (64%) used a DRVVT-based assay, while the other participants used an APTT-based assay. However there was no relationship between the number of test panels performed and the final interpretation of the sample. In the group indicating the sample as negative the same percentage of participants used only 1 test panel as in the group indicating the sample as strongly positive. With the exception of the diluted PT test the vast majority of participants observed a prolonged screening test. On the other hand, 20% of the participants observed a normal test result in the mixing study. Although for every assay type a significant number of participants indicated the mixing study as normal, this was most pronounced for the DRVVT-based assays and the diluted PT tests. However there seems to be no relation between the classification of the test result and the method used. Also in the confirmation test a significant number (26%) of participants indicated the sample as normal. A normal confirmation test was mostly observed by users of an APTT, DRVVT, PNP and dPT test. Again there seems to be no relationship between the classification of the test and the method used. It was also obvious that not all participants always performed a complete testing panel, including a screening, mixing and confirmation test. Especially for the DRVVT test about 35% of the users of these tests did not perform a mixing test. However performing yes or no a mixing study seems not to be related to the final interpretation.
Conclusion: In conclusion, it is clear that not all participants follow the international guideline of the ISTH for lupus testing. However this seems not to be related to the interpretation of the sample under investigation.