



session

40 - Oral Communication

Critical Care, Surgery & Transfusion medicine

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Abstract

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Assessment of the anticoagulant effect of direct oral anticoagulants (DOACs) in patients needing immediate management during emergency procedures

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Background and Objective

Assessment of the anticoagulant effect of direct oral anticoagulants (DOACs) still is a challenge for various medical disciplines, especially in patients needing immediate care in a medical emergency. Aside from severe bleeding and thrombotic events, evaluation of the coagulation status is important for urgent indication of fracture care or administration of a specific antidot. An assay that screens for the absence of a DOAC might help accelerate treatment in these situations. The goal of this study is to evaluate the use of a qualitative POC Method (DOAC Dipstick, DOASENSE®) in an emergency setting.

Methods

Between 11/2019 and 04/2020 the POC method was available for all clinicians in a level I emergency department. The POC testing was indicated by the physician on duty followed by a standardized questionnaire on basic patients' parameters, indication for the qualitative testing and drawn conclusions based on the tests' results. Intraindividual reliability blinded to the clinical user (visual testing vs. semiquantitative reader) as well as the interindividual reliability compared with standard anti-factor-Xa (antiXa)- or direct-thrombin-inhibitor (DTI)-tests were investigated.

Results

In total, 82 patients were included (30% Neurology, 50% Trauma, 10% Neurosurgery, 10% Internal Medicine) 28 patients being anticoagulated with antiXa inhibitor and 7 patients with dabigatran. Test results of POC testing could be confirmed using standard anti-factor-Xa (antiXa)- or direct-thrombin-inhibitor (DTI)-tests in all cases. In most cases the POC test was used to identify unknown DOAC status in patients who could not be interviewed concerning their medication. 12 patients received a lysis therapy after exclusion of DOAC anticoagulation, 2 patients were treated with a specific antidot after a major bleeding event. In 6 patients the POC test demonstrated a positive result in patients that stopped using the oral medication several days ago.

Conclusion

In an emergency with an immediate consequence under time pressure, the POC test might provide a significant time advantage compared to standard laboratory testing. Due to the cumulative effect within the patients' urine the test can only be used for the qualitative verification and does not provide any information concerning the actual anticoagulative effect.