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Schött, Ulf; Rundgren, Malin; Engström, M

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LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

AN EVALUATION OF MONITORING POSSIBILITIES OF ARGATROBAN USING ROTATIONAL THROMBOELASTOMETRY AND APTT

U. Schott^{*1,2}, M. Rundgren¹, M. Engström²

¹Anesthesia and Intensive Care, University Hospital in Lund, Lund Sweden, ²Anesthesia and Intensive Care, Halmstad Central Hospital, Halmstad, Sweden

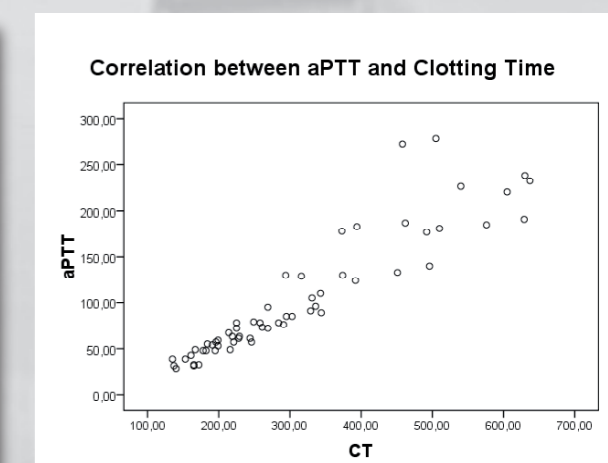
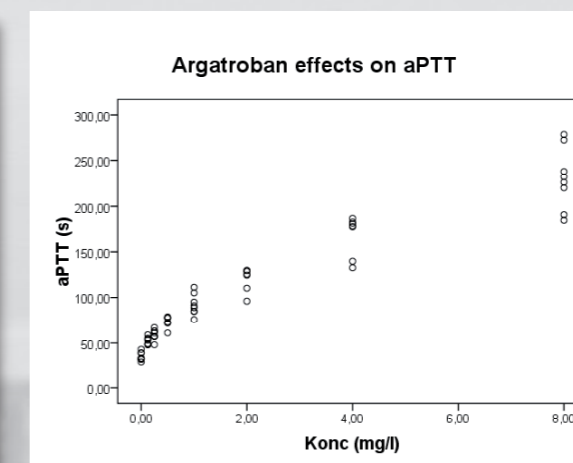
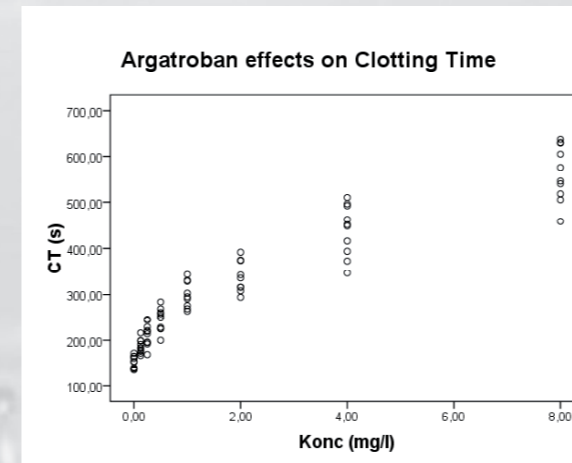
Conclusion

A significant and strong correlation between argatroban concentrations and several ROTATIONAL THROMBOELASTOMETRY (ROTEM®) parameters were found, especially so in the clinically relevant therapeutic range up to 100 s aPTT for patients with heparin induced thrombocytopenia (HIT). Rotational thrombelastometry/ thrombelastography has a potential role to increase the safety of argatroban anticoagulation in critically ill patients, like patients with heparin induced thrombocytopenia (HIT).

Introduction: The aim of the study was to study in vitro argatroban anti-coagulation with ROTEM® and activated partial thromboplastin time (aPTT).

Method: Argatroban was added in vitro to a series of citrated whole blood samples from 10 healthy volunteers to obtain whole blood concentrations of 0, 0.125, 0.25, 0.5, 1.0, 2.0, 4.0 and 8.0 mg/l. Whole blood aPTT was analysed with a Free Oscillation Rheometer (FOR or ReoRox®, Medirox Sweden) and thromboelastometry ROTEM® (Pentapharm GmbH, Munich Germany).

Results: There was a significant and strong correlation between argatroban concentrations and Clotting Time (CT in ROTEM® analysis with INTEM) ($p < 0.0001$ and $r = 0.98$). When we studied the correlation between aPTT and CT, we found a highly significant and strong correlation between these two analyses ($p < 0.0001$ and $r = 0.97$). See figs 1-3.



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