BMC Pharmacology



Meeting abstract



# Pharmacokinetics and pharmacodynamics of the dual FII/FX inhibitor BIBT 986 in endotoxin-induced coagulation

Judith M Leitner[1], Bernd Jilma*[1], Florian B Mayr[1], Francesco Cardona[1,2], Alexander O Spiel[1], Christa Firbas[1], Karin Rathgen[3], Hildegard Stähle[3], Uwe Schühly[3] and Eva U Graefe-Mody[3]

Address: [1]Department of Clinical Pharmacology, Division of Haematology and Immunology, Medical University of Vienna, Austria, [2]Department of Pediatrics, Division of Neonatology and Intensive Care, Medical University of Vienna, Austria and [3]Boehringer Ingelheim Pharma GmbH & Co. KG, Biberach, Germany

Email: Bernd Jilma* - bernd.jilma@meduniwien.ac.at

* Corresponding author

*from* 13th Scientific Symposium of the Austrian Pharmacological Society (APHAR). Joint Meeting with the Austrian Society of Toxicology (ASTOX) and the Hungarian Society for Experimental and Clinical Pharmacology (MFT)
Vienna, Austria. 22–24 November 2007

Published: 14 November 2007

*BMC Pharmacology* 2007, **7**(Suppl 2):A29 doi:10.1186/1471-2210-7-S2-A29

This abstract is available from: http://www.biomedcentral.com/1471-2210/7/S2/A29



## Introduction

BIBT 986 is a dual inhibitor of factors Xa and IIa. The aim of this study was to compare with placebo the effect of three doses of BIBT 986 on coagulation, platelet activation and inflammation.

## Methods

This was a prospective, randomized, double-blind, placebo-controlled, parallel-group dose escalation trial in 48 healthy male volunteers. Participants received one of three doses of BIBT 986 or placebo intravenously together with a bolus infusion of 2 ng/kg lipopolysaccharide (LPS).

## Results

BIBT 986 dose-dependently changed global coagulation parameters and in vivo markers of thrombin generation and action: BIBT 986 doses, which prolonged activated partial thromboplastin time by 100%, completely suppressed the LPS-induced increases in prothrombin fragment, thrombin-antithrombin complexes and D-dimer, which were 6.1, 14.5, and 3.5-fold in the placebo group, respectively. BIBT 986 did not influence inflammation, fibrinolysis, or platelet activation.

## Conclusion

BIBT 986 is a potent anticoagulant in the human endotoxemia model.