Belgian multicenter study into von Willebrand Disease (B-Will Study): First results

I. Vangenechten[1], K. Jochmans[2], P. Peters[3], K. Devreese[4], C. Hermans[5], S. Motte[6], A. Gadisseur[1]
[1]Antwerp University Hospital, Hematology, Edegem, Belgium, [2]University Hospital Brussels, Hematology, Brussels, Belgium, [3]University Hospital Liège, Laboratory of Thrombosis-Hemostasis , Liège , Belgium, [4]University Hospital Gent, Department of Clinical chemistry, microbiology and immunology, Gent, Belgium, [5]University Hospital UCL-Saint Luc, Hematology, Brussels , Belgium, [6]University Hospital ULB-Erasme, vascular medicine, Brussels, Belgium

Background/ Introduction
Von Willebrand Disease (VWD) is an autosomally inherited bleeding disorder caused by a quantitative or qualitative defect of von Willebrand factor (VWF). It is classified in type 1 (quantitative defect), type 2 (qualitative defect), and type 3 (absence of VWF), and further subclassifications. The current ISTH classification is based on measurement of VWF:Ag, VWF:RCo, Ristocetin Induced Platelet Aggregation (RIPA) and VWF multimers.

Aims
In a multicenter study, organized by the Antwerp University Hospital, a family-based analysis of VWD in Belgium was initiated in 2011 under auspices of the BSTH, with patient accrual starting in 2012.Blood samples were collected from patients with suspected or known VWD with one of the following characteristics: VWF:Ag<35%, VWF:RCo<35%, VWF:RCo/VWF:Ag<0.7, VWF:CB/VWF:Ag<0.7, FVIII:c/VWF:A <0.5, or positive low concentration RIPA, and grouped in families. From each family the proband was included in the study together with at least one affected sibling or parent.

Methods/Materials
At this moment, blood has been collected from 123 representing 77 families with suspected VWD. FVIII:c, VWF:Ag, VWF:RCo, VWF:CB, VWFpp, VWF-FVIII binding (if indicated), VWF multimers and molecular analysis were performed at Antwerp University Hospital. Platelet Function Analyzer and RIPA testing were done locally.

Results
Based on laboratory tests FVIII:c, VWF:Ag, VWF:RCo, VWF:CB, VWFpp and VWF multimers the distribution of different subtypes of VWD is as follows: VWD type 1 in 29/123 patients, and type 2 in 21/123 patients (type 2A in 12/125, type 2M in 8/123 and type 2N 1/123), with 10/123 still unconfirmed/unclassified. All cases of type 3 VWD (5/123 patients) were based on the presence of (often asymptomatic) type 1 VWD in both parents.

Summary/Conclusions
Molecular analysis is still ongoing with currently 56/123 patients fully analyzed and the remainder partially. So far, 27 mutations in the VWF gene have been found in 55/123 patients, of which 7 are new to the ISTH VWD database (http://www.vwf.group.shef.ac.uk/), and awaiting gene expression studies. In 2/123 patients heterozygous type 2N mutations were detected.

Dose finding of rivaroxaban in hemodialysis patients

A.S. De Vriese[1], R. Caluwé[2], E. Bailleul[3], D. De Bacquer[4], D. Borrey[5], S. Ameye[5], E. Hysselinckx[3], B. Van Vlem[2], S.J. Vandecasteele[1], J. Emmerechts[5]
[1]AZ Sint-Jan Brugge, Division of Nephrologie and Infectious Diseases, Brugge, Belgium, [2]OLVZiekenhuis Aalst, Division of Nephrologie, Aalst, Belgium, [3]OLVZiekenhuis Aalst, Laboratory Medicine, Aalst, Belgium, [4]UZ Gent, Public Health, Gent, Belgium, [5]AZ Sint-Jan Brugge, Laboratory Medicine, Brugge, Belgium

Background/ Introduction
The use of vitamin K antagonists for the prevention of stroke and systemic embolism in dialysis patients with non-valvular atrial fibrillation is controversial. However, no good alternatives are presently available. The anti-FXa antagonist rivaroxaban is contraindicated in patients with a CreaCl < 15 ml/min, for lack of pharmacokinetic, pharmacodynamic

Aims
IThe aim of the present study was to characterize the pharmacokinetics and pharmacodynamics of rivaroxaban in chronic hemodialysis patients without residual renal function. and clinical data.