STUDY ON THE EFFECT OF DDAVP ON FACTOR VIII-RELATED PROPERTIES IN HEMOPHILIA AND VWD N. Ciavarella, S. Solinas, D. Pilolli, P. Ranieri, D. Corrao, S. Antoncecchi and G. Mariani. Institute of Clinical Medicine, University of Bari and Institute of Hematology, University of Rome, Italy.

Twenty-one patients affected by mild and moderate Hemophilia A as well as 9 patients with the classic form of vonWillebrand’s disease (vWD) were given a total of 58 infusions of DDAVP. Concerning Hemophilia a a three fold mean raise ( X = 3.0, sem 0.19; range of ratios post/preinfusion 1.35 - 5.55) of factor VIII:C levels was observed after the infusion of 0.3 µg/Kg b.w. A mean raise of 3.44 ( sem 0.48, range 2.20 - 6.7) after the infusion of 0.4 µg/Kg was found. The difference between the two regimens is not statistically significant (p > 0.5). As to the vWD 18 infusions were given. In 6 patients the changes of factor VIII:C, VIII:Ag and VIII:vWF were roughly consensual ( ratios post/preinfusion ranging from 2.2 to 4.0 for VIII:C; from 1.8 to 3.5 for VIII:Ag and from 3.1 to 6.2 for VIII:vWF). In the remaining 3 patients a very strong response of VIII:C ( ratios post/preinfusion 12.0, 15.1 and 6.5) was observed. Also the other properties related to factor VIII underwent to relevant increase. In one of these patients a modified electrophoretic mobility of factor VIII was found; the other two (father and daughter) had a normal factor VIII mobility after stimulation with DDAVP.

STUDY ON THE LONG TERM TOLERANCE AND RECOVERY OF COLD STERILIZED PPSB IN CHIMPANZEES. W. Stephan, A. M. Prince, R. Rotitzsche. 1Biotest-Serum-Institut GmbH, Frankfurt am Main, W. Germany, 2New York Blood Center, New York, N.Y., USA

Recent experiments have shown, that PPSB (factor IX-concentrate) derived from 8-propiolactone/ultraviolet (8-PL/UV)-treated (cold sterilized)plasmas is not infectious in chimpanzees in respect to hepatitis B and Non A–Non B. To answer the question whether the 8-PL/UV treatment influences the tolerance and efficacy of the cold sterilized PPSB-concentrate, long term application of PPSB-Biotest was performed in chimpanzees.

After 12 applications of 25 units factor IX/kg in weakly intervals no signs of intolerance were observed by means of skintesting and observation of blood pressure during i.v. application. Determination of coagulation factor activity during the application period shows the same factor IX-recovery at the beginning and at the end of the study.

In hemophilia A patients with inhibitor to Factor VIII, prothrombin complex concentrates were found effective in treating hemorrhagic episodes. However, in several patients DIC or thromboembolic complications developed. Some of the manufacturers have altered production methods eliminating certain activated coagulation factors from the preparations. After these modifications some of these preparations were found to be less effective clinically. In the first study, we compared potential thrombogenicity of two preparations: Autoplex and FEIBA and as control prothrombin complex preparation with no appreciable activated factor content (Prothromplex) for the ability to induce thrombosis in an isolated segment of the renal vein of C57BL6/J, ICR/HA male mice, and Sprague-Dawley male rats. The minimum thrombosis inducing dose was 200 prothrombin complex units per kilogram of Prothromplex, 25 FEIBA units of FEIBA and 0.45 FEIBA units of Autoplex. The fact that Autoplex is approximately 51 times more active than FEIBA can probably be explained by the fact that the latter contains more factor IXa and Xa activity than the former.