THE CLINICAL APPLICATION OF FEIBA IMMUNO IN FACTOR VIII INHIBITOR PATIENTS. K. Anderle, Immuno Ag Wien, Vienna, Austria.

The aim of this report is to summarize the clinical and laboratory effect and possible side-effects arising in the use of FEIBA IMMUNO for treating Factor VIII and IX inhibitor patients.

In the time between 22nd November 1974 and today FEIBA IMMUNO was supplied for 14 treatment periods. More than 70 patients in 22 hemophilia centers all over Europe were treated, 59 case reports from 19 of the centers were sent to IMMUNO AG for further evaluation.

In 8 cases minor surgery was carried out, of which only one case was complicated by post-operative bleeding. In all other cases different bleeding complications were treated. The clinical effect was difficult to evaluate, but the impression was favourable.

FEIBA's effect on WBCT, the r-value of TEG, and on aPTT are statistically evaluated for two different mean dosages.

Acute side-effects were allergic reactions in 5 cases and laboratory signs of DIC in 4 cases, two of which had received extremely high dosages. Calculation of the mean pre- and post-treatment values for platelets and fibrinogen did not show any differences.

EXPERIMENTAL STUDIES ON FACTOR VIII INHIBITOR BYPASSING ACTIVITY. H. Vinazzer, Hemophilia Center, Linz, Austria.

The exact action of factor VIII inhibitor bypassing activity (FEIBA) is still unclear. For this reason, a series of experimental studies was carried out. Procoagulant activities were examined by standard one-stage methods while factor Xa and thrombin were measured by chromogenic substrates. Activities of factors II, VII, IX, and X were similar to PPSB fractions. In addition, low factor V activity and a phospholipid were detected. No activated factor X was present in FEIBA but there was a trace amount of 2.1 NIH units of thrombin per 100 FEIBA units. On addition of calcium chloride slow thrombin formation could be observed which however, reached 1100 NIH units of thrombin per 100 FEIBA units within an incubation time of 10 min. The velocity of thrombin formation was greatly enhanced by addition of a PTT reagent and of thromboplastin respectively. Factor Xa on the other hand, was neither formed after addition of calcium chloride nor by a PTT reagent. Tissue thromboplastin however, activated Xa from FEIBA in the same manner as a PTT reagent plus barium sulfate plasma. From these results, the conclusion could be drawn that thrombin could readily be made available from FEIBA while activation of Xa either needed the complete endogenous pathway or the presence of tissue thromboplastin. The procoagulant activity of FEIBA therefore, could be attributed to direct thrombin formation. By this process, an activation of the clotting mechanism in plasmas deficient in endogenous coagulation factors, and a complete independence from the presence or absence of a specific antibody could be explained.

DEFIBRATION SYNDROME DEVELOPED AFTER REPLACEMENT THERAPY WITH PPSB IN A CASE OF HEMOPHILIA B. M. Kazama, H. Iwakura, M. Nakajima, M. Abe and T. Abe. Teikyo University School of Medicine, Tokyo, Japan.

A case of Hemophilia B, 20y., had valgus osteotomy of the left femoral neck. The preliminary replacement with PPSB was revealed not to introduce inhibitor and no other abnormal enzyme activity was found except for the slight disturbance of liver function. The operation was gotten ready with injection of 10 vials PPSB and performed smoothly in 2 hours with 340ml of blood loss. PPSB administration was scheduled in a daily dosis of 20 vials divided in twice. But at the third postoperative day, large hematoma concreted in the femoral region with severe pain and was followed by the massive bleeding from the wound. Coagulation tests revealed decreased platelet count, prolonged PTT and prothrombin time, decreased fibrinogen and increased FDP. The concentration of F.IX was not lifted so high as expected after the injection of 10 vials of PPSB, which, together with the above mentioned changes of coagulation factors, suggested the development of defibrination syndrome.

The replacement of PPSB was continued together with 10,000 U of heparin and 800ml of fresh plasma per day. At the 7th postoperative day, the coagulation findings of defibrination syndrome were gradually improved, bleeding decreased and F. IX level elevated as could be calculated. The administration of PPSB was diminished and discontinued at 29th day and of heparin at 45th day without any bleeding complication thereafter.