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EXPERIMENTAL RESEARCHES OF EFFECTS OF POLYACTIN A ON HEMOPOIETIC STEM CELL OF MARROW. Zeng Xiang-yuan and Zhang Ying. Clinical Experimental Centre, Chengdu Army General Hospital, Chengdu, Sichuan, CHINA.

Polyactin A is a new immunological enhancement agent which was developped in China for the first time. It is a polysaccharide extracted from cultured a-nemolytic streptococcus No.33 in the mouth. Clinical observation suggests that the drug has marked inhibiting effects on some tumors and can increase the number of leucocytes, enhance immunity of the organism. Polyactin A has especially good effect on aplastic anemia and it is a new drug in treatment of aplastic anemia. However, it mechanism isn't understand.

Effects of Polyactin A on hemopoietic stem cells of marrow are studied. The hemopoietic stem cells (CFU-s) were measured by method forming colonies in the spleen after mice were irradiated. Experimental observations showed that spleen weight, the number of CFU-s and spleen index in the group of Polyactin A were notably more than those in the control group. Electron microscopic studies on the colonies of spleen were also presented. The results suggest that Polyactin A can make effects on hemopoietic stem cells of marrow and has good influence to stimulate hemopoiesis.

This study provided experimental evidence for use which Polyactin A can treat aplastic anemia in clinic.

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EVALUATION OF CLOTTING PARAMETERS AND PHYSIOLOGICAL INHIBITORS IN PH^1/+ CHRONIC MYELOID LEUKEMIA PATIENTS UNDERGOING ALLOGENEIC BONE MARROW TRANSPLANTATION. M.C. Tirindelli, W. Arcese, G. Mariani, G. Papa, C. Fossati and G. Iacopino. Dept. of Human Biopathology, Sec. of Hematology, University of Rome "La Sapienza", Rome, Italy.

The aim of this study is to evaluate blood coagulation changes in Ph^1 positive chronic myeloid leukemia (Ph^1 + CML) patients undergoing allogeneic bone marrow transplantation (BMT), T-depleted with the monoclonal antibody Campath 1, and to find a possible correlation between changes of procoagulant proteins, physiological inhibitors and venoclusive disease (VOD). VOD is a major complication in the early period following BMT.

Out of 13 patients, two of them developed VOD. Von Willebrand Factor Antigen (vWF:Ag), Factor VII antigen (F.VII:Ag), Plasminogen antigen (PLG:Ag), Factor V activity (F.V:C), Antithrombin III activity, Protein C antigen (PC:Ag) and fibrinogen activity (FG) were evaluated in all patients following sampling times: day 10 (before conditioning regimen), day 0 (day of BMT), day + 10 (after BMT), day + 28 (median day of engraftment) and day + 60 (after BMT).

PLG:Ag, F. VII:Ag and PC:Ag levels decreased significantly (p values $<.05$, $<.025$, $<.001$ respectively). In particular, in 5 patients whose PC:Ag levels dropped below the limit considered at risk for thrombosis (<60 U/dl), two of them developed VOD. vWF:Ag, F. V:C and FG increased significantly (p values $<.04$, $<.05$, $<.05$ respectively). Antithrombin III activity did not change significantly throughout the period of observation.

In conclusion, the reduction of PC, PLG and the contemporary rise of vWF and FG can increase the risk of developing thromboembolism in the early stage following BMT.

LOW MOLECULAR WEIGHT HEPARINS

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SUBCUTANEOUS ENOXAPARINE (LOVENOX^R) VERSUS PLACEBO FOR PREVENTING DEEP VEIN THROMBOSIS (DVT) AFTER TRANSURETHRAL PROSTATECTOMY (TUP). F. LE GAGNEUX*, A. STEG, M. LE GUILLOU. *Department of Anaesthesia (Pr. CONSEILLER), Hôpital Cochin, Paris, France.

The aim of this study was mainly to evaluate the risk of bleeding, and the efficiency of Enoxaparine, a low-molecular-weight-heparin, in preventing DVT in patients undergoing TUP.

89 patients (mean age : 67.5 years $\pm$ 1.3), undergoing TUP, were included in a randomized, double blind study. Patients with a major risk of thromboembolism were excluded. 44 patients received one daily subcutaneous (SC) injection of 60 mg of Enoxaparine ; 45 patients received placebo. All the patients received the first injection 12 hours before operation.

Red cell transfusions requirements were not significantly different between the two groups : 18 % of patients in the Enoxaparine group and 13 % of patients in the placebo group received red cell transfusions ($p = 0.57$). The amount of red cell units required was 3.3 units $\pm$ 0.9 in the Enoxaparine group and 2.5 U $\pm$ 0.8 in the placebo group ($p = 0.51$). The urethral catheters were removed on the 4th post operative day in each group. There was no significant difference in daily hemoglobin levels between the two groups.

No DVT occurred : ^{125}I fibrinogen scanning was negative in all patients but two : in these two patients (one in each group), DVT was not confirmed by a radiographic phlebography. No pulmonary embolism occurred.

Enoxaparine, begun 12 hours before operation, however injected at high dose (60 mg/24 hrs), is safe in patients undergoing TUP. No significant bleeding complication occurred in the Enoxaparine group comparing with the placebo group. Red cell transfusions requirements were the same in both groups. There was no DVT in our patients.

Enoxaparine (LOVENOX^R) - PHARMUKA S.F.

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ENOXAPARINE (LOVENOX^R), DURING RENAL DIALYSIS, IN 46 PATIENTS WITH CHRONIC RENAL FAILURE (CRF) AND WITH HIGH RISK OF BLEEDING (HRB). E. DECHELETTE*, P. POUZOL, C. JURKOVITZ, B. POLACK. *Department of Nephrology, C.H.R.U. Grenoble, France.

Standard heparin, usually used as an anticoagulant during hemodialysis, may be dangerous in patients with HRB. Low-molecular-weight-heparin (LMWH) fragments have been shown to induce less bleeding than standard heparin. We assessed the ability of Enoxaparine, a LMWH, to prevent clotting during hemodialysis, in such patients.

46 patients with CRF, requiring regular maintenance hemodialysis were included. 136 episodes of HRB occurred in these 46 patients : renal transplantation (17), deep vessel catheterization (18), biopsy (11), surgical operation other than renal transplantation (46), obvious bleeding or HRB (44). 493 hemodialysis were performed using a single dose of Enoxaparine, as a bolus, 0.5 mg/kg for a double pass system, 0.75 mg/kg for a single pass system. Blood flow rate was maximum (350 ml/mn) in case of arterio-venous fistulas, and varied between 200 and 250 ml/mn in case of superior veina cava catheters. Air-blood exchange areas were maintained as small as possible. Bubble traps were examined every half an hour. Hemodialysis lasted 4 or 5 hours.

Extensive clotting within the extracorporeal circulation occurred only 3 times (0.6 %) ; (in 2 of the 102 hemodialysis performed with a single pass system and in 1 of the 391 hemodialysis performed with a double pass system). Efficiency of hemodialysis was always very good ; one patient had a genital hemorrhage requiring red cell transfusion. No other bleeding complication due to Enoxaparine was detected. 7 surgical operations and 3 renal biopsies were performed just after a hemodialysis without any problem.

This study shows that hemodialysis can be performed with Enoxaparine, 0.5 - 0.75 mg/kg, as a bolus in patients with HRB. It is efficient in preventing clotting, does not increase the risk of bleeding and ensures a very good quality of extrarenal filtration.

Enoxaparine (LOVENOX^R) - PHARMUKA S.F.