

THROMBECTOMY FOR ILIO-FEMORAL THROMBOSIS IN FERTILE WOMEN. J. Swedenborg, A. Delin, M. Hellgren, H. Jacobsson and E. Nilsson. Departments of Surgery, Obstetrics and Gynecology, Radiology, Clinical Physiology and Coagulation Disorders, Karolinska Hospital, S-104 01 Stockholm, SWEDEN.

Thirteen women, age 29-48 years, with ilio-femoral venous thrombosis were subjected to thrombectomy via the femoral vein, and construction of an arteriovenous fistula. Anticoagulant therapy was given from the operation and 6 months on. The AV fistula was closed after 3 months. After cessation of anticoagulant therapy the patency of the iliac vein was evaluated by plethysmography and, if this was inconclusive, by phlebography. A work-up for coagulation abnormalities was also made.

All thromboses were left-sided. Several risk factors were present: pregnancy in 9 of 13 (2 early) contraceptive pills in 2 of 13, and iliac vein stenosis in 9 of 10. In 8 of 12 decreased levels of plasminogen activators were noted.

Of the 9 pregnancies, three were complicated and required interruption, one was terminated by normal delivery one week before thrombectomy, two were interrupted at the time of thrombectomy, and three continued to normal deliveries several weeks after thrombectomy.

No pulmonary embolism was observed. At follow-up, the iliac vein was patent in eleven patients.

It is concluded that the pathogenesis of ilio-femoral venous thrombosis in fertile women is multifactorial, involving hormonal and mechanical components. This study draws attention to decreased fibrinolytic activity in many of the patients. Thrombectomy resulted in iliac vein patency in eleven of thirteen patients. The procedure is well tolerated by mother and child during pregnancy.

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MONITORING LOW-DOSE HEPARIN ADMINISTRATION IN HIP SURGERY. L. Poller and D.A. Taberner. National (UK) Reference Laboratory for Anticoagulant Reagents and Control, Withington Hospital, Manchester, UK.

Fifty-five patients requiring selective hip replacement or emergency surgery for hip fractures were randomly given fixed low-dose subcutaneous calcium heparin 5,000 units 8-hourly (30 patients) or monitored subcutaneous calcium heparin (25 patients). The aim was to prolong the activated partial thromboplastin time (APTT), using the NRLARC method, to 5 seconds above the upper limit of normal.

Adjusting the dose of heparin was moderately successful in achieving the target value for the APTT (46% of observations) compared to the fixed dose group (27%) $p < 0.005$. In nine patients prophylaxis failed to prevent DVT detected by ^{125}I -fibrinogen scan; three were in the adjusted dose, six in the fixed dose heparin group. In all nine patients the APTT showed less than the desired prolongation the day before the scan became positive although in six patients with positive scans, measurable heparin levels were detected by anti-factor Xa assay. The APTT appears, therefore, to give a better guide during hip surgery to the antithrombotic effect of heparin than the anti-factor Xa assay in low-dose heparin prophylaxis. Maintaining the APTT at or above 50 seconds with the NRLARC method protected these high risk patients from post-operative DVT.

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SULFINPYRAZONE AND PREVENTION OF POSTOPERATIVE DEEP VENOUS THROMBOSIS (DVT). G. Arapakis, A. Trovas, G. Orphanoudakis and P. Vassilikos. Second Medical Unit, 1st IKA Hospital, Melissia, Athens, Greece.

Though the antithrombotic properties of sulfinpyrazone (SP) in arterial thrombosis have been documented, its value in phlebothrombosis remains uncertain. In this randomized double-blind trial, the effect of SP (500mg I.M. twice daily for the first 10 postoperative days) on postoperative DVT was compared with a placebo control group. 96 (65 male and 31 female) patients 41 to 83 years of age undergoing major surgical operations were included in the trial. The composition of the two groups (treated and placebo) were homogenous regarding age, sex and type of operation ($0.30 < p < 0.50$). The incidence of DVT was estimated clinically and isotopically by the ^{125}I -labelled fibrinogen test.

No clinical phlebothrombosis was observed in either group but DVT was detected isotopically in 4 (8.3%) out of 48 in the placebo and in 7 (14.5%) of the 48 in the SP group. Analysis by the χ^2 showed no statistical significance in the prevalence of postoperative DVT between the two groups ($\chi^2 > \chi^2_{0.30/1}$). These results suggest that SP has no place in the prevention of postoperative DVT.

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ANTITHROMBIN III ACTIVITY DURING INTRAVENOUS AND SUBCUTANEOUS TREATMENT WITH HEPARIN IN PATIENTS WITH VENOUS THROMBOSIS. K. Holmgren, G. Andersson, N. Egberg, H. Johnsson, B. Ljungberg and S. Wilhelmsson. Departments of Medicine and Blood Coagulation Disorders, Karolinska Hospital and Danderyd Hospital, Stockholm and Nyköpings Hospital, Sweden.

Fifty patients with acute deep venous thrombosis in the leg were randomly allocated to either two daily subcutaneous injections (S.C.) or continuous intravenous infusion (I.V.) of heparin for at least five days. Most patients were given coumarols from the first day of heparin treatment. The amount of heparin required to maintain a prolongation of the APT-time 1 1/2 to 3 1/2 times was the same in both groups and daily heparin dosages varied between 25,000 and 50,000 units. Antithrombin III activity (AT III) was measured daily during heparin treatment and in some patients also AT III estimations were performed 1 to 12 months after heparin treatment i.e. during and after coumarol treatment.

Results: The mean concentration of AT III decreased progressively in both groups during heparin treatment from about 95% to 70%. The decrease in AT III was the same in patients treated with heparin S.C. as in patients treated with heparin I.V.