POSTER SYMPOSIUM XX

Techniques for Thrombus Localization.

VENOUS DOPPLER VELOCITY EXAMINATION IN PULMONARY THROMBOEMBOLISM. T. R. Griggs, L. B. Bustad, and C. A. Ely. University of North Carolina School of Medicine, Chapel Hill, North Carolina, USA.

The Doppler ultrasonic velocity detector, which is sensitive for deep vein thrombosis in 90% of cases demonstrated by venography in our institution, might be useful in the evaluation and management of patients with pulmonary thromboembolism (PE). This study describes the association of results of Doppler velocity examinations with the presence or absence of PE as documented by pulmonary angiography in 51 patients. Results are shown in the table. Doppler studies were performed within 48 hr of angiography.

		Angiography		
		pos	neg	tot
Doppler	pos	4	2	6
	neg	18	27	45
	tot	22	29	51

Five patients with positive angiograms had initial or recurrent PE while on anticoagulants. Four of the 5 had positive Doppler studies and the fifth had an incomplete test because of a cast. One patient developed Doppler positivity 2 days before reembolization.

One conclusion is clear: Negative venous Doppler examinations must not be used to rule out PE. The study also raises 2 questions: 1) Does negative Doppler examination at the time of PE represent complete embolization of thrombus and low risk of immediate recurrence? 2) Is positive Doppler study at the time of PE an indication for early venous plication?

THE USE OF THERMOGRAPHY FOR SCREENING OF POSTOPERATIVE DEEP VENOUS THROMBOSIS (DVT); A COMPARISON WITH ^{125}I -FIBRINOGEN TEST. D. Bergqvist and T. Hallböök, Department of Surgery, Skövde, Sweden.

At the last congress on Thrombosis and Haemostasis we showed a high degree of diagnostic agreement between thermography and phlebography in patients with clinical suspicion of DVT (Thromb. Diath. Haemorrh., 34:905, 1975). These findings have been verified in a large number of patients. On the other hand the value of thermography as a screening method for postoperative DVT is not known. The aim of this study was to evaluate the screening possibilities of thermography postoperatively with ^{125}I -fibrinogen test as the reference method. 272 patients (544 legs) were investigated with the two methods simultaneously for one week to ten days postoperatively. The overall agreement between the methods was 79 %, the sensitivity being 64 % and the specificity 90 %. One explanation for the relatively poor precision is that ^{125}I -fibrinogen test is extremely sensitive, detecting also very minute thrombi in the calves. The ^{125}I -fibrinogen positive thrombi were therefore analysed in relation to their localization. In cases with thrombi extending above the knee level the agreement was 72 %. It can be concluded from this study that thermography gives a lower frequency of DVT than ^{125}I -fibrinogen test in postoperative patients. It must be further evaluated if any dangerous thrombi are missed or if thermography can be used as a non-invasive screening method in the postoperative course.