

Lysis of Deep Vein Thromboses with Ipsipedal Application of Ultra-High Streptokinase and Compression

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Aim. Assessment of the lysis of deep vein thromboses by ultra high streptokinase (UHSK) using the ipsipedal application technique and additional compression.

Method. Between May 1989 and March 1996, 161 patients (age, 19-85 years) were treated by this method in our hospital. The thromboses were diagnosed phlebographically. Most of them were up to 3 weeks old, but several 5-week-old thromboses were also treated. Thrombosis sites varied from lower leg to iliac vein. The maximum number of streptokinase application cycles was 4. The first cycle consisted of an initial infusion of 250,000 units of streptokinase, followed by 9 million units over a period of 6 hours. The second to fourth cycle comprised 9 million units of streptokinase each. Streptokinase was given in a dilution of 9 million units in 160 ml of glucose. Intravenous heparin was administered during and after lysis cycles. Streptokinase was supplied via a cannula introduced into the back of the foot of the affected leg (ipsipedal application). The patients had to wear two anti-thrombosis stockings (class 1) and were treated with additional compression of 6.7-9.3 kPa (50-70 mm Hg) to the leg during the cycles.

Results. The average number of cycles was 2.1 ± 0.9 . Full recanalization of the thrombosed veins was achieved in 60.0%, partial in 34.5%, and none in 5.5% of the cases. Hemorrhagic complications occurred in 14.2% of the cases. Only 2 patients (1.2%) had retroperitoneal hematomas, one requiring blood transfusion. One female patient (0.6%) died of cerebral hemorrhage. In two cases (1.2%); none of which was diagnosed as iliac venous thrombosis, pulmonary embolisms occurred during fibrinolysis, and were successfully dissolved during the fibrinolytic treatment.

Conclusion. UHSK lysis with the ipsipedal application technique and adjuvant compression shows good recanalization results and low complication rates. It is an effective treatment for deep vein thromboses, provided that risks and benefits are carefully weighed up beforehand.

Key words: phlebography; streptokinase; thrombosis, venous