Vascular

TREATMENT OF THROMBOSSED HEMODIALYSIS ACCESS GRAFTS: ARROW-TRETOMAT PERCUTANEOUS THROMBOLYTIC DEVICE VERSUS PULSE-SPRAY THROMBOLYSIS


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To evaluate a percutaneous thrombolytic device (PTD) designed for treating thrombosed hemodialysis access grafts, to compare the PTD with pulse-spray pharmacomechanical thrombolysis (PSPMT) by using urokinase, 122 randomly chosen patients with synthetic, thrombosed hemodialysis access grafts from multiple centers prospectively underwent thrombolysis with the PTD (5-F, low-speed rotational mechanical device) or PSPMT. Major outcome variables included the procedure time, the immediate technical patency rate, the complication rate, and the 3-month patency rate. Sixty-four PTD and 58 PSPMT procedures were performed with intent to treat. The immediate technical patency rate was 95% (61 of 64 [PTD] and 55 of 58 [PSPMT]) in both procedures. Median procedure times were 75 minutes in the PTD group (range, 25–209 minutes) and 85 minutes in the PSPMT group (range, 50–273 minutes; P < .04). Major complications occurred in 8% (five of 64) of PTD procedures (none related to the PTD) and 9% (five of 58) of PSPMT procedures (not significant). Two devices broke (one during training) with no clinical sequelae. The 3-month primary patency rate was 39% (25 of 64) in the PTD group and 40% (23 of 58) in the PSPMT group (not significant). The PTD is safe and effective for treating thrombosed hemodialysis access grafts. The technical and long-term success rates are similar to those of PSPMT; procedure times are shorter.

Authors' abstract

DUPLICATED SUPERFICIAL FEMORAL VEINS: A SOURCE OF ERROR IN THE SONOGRAPHIC INVESTIGATION OF DEEP VEIN THROMBOSIS

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To determine whether the number of false-negative ultrasound (US) findings of thrombosis is larger when a duplicated femoropopliteal venous system is present, a retrospective review was performed of 381 venograms obtained after initial US findings were considered negative for thigh or popliteal thrombosis in patients in whom deep vein thrombosis was suspected. Venograms were evaluated for the presence of thrombosis and the presence and configuration of duplicated superficial femoral veins. Multiple superficial femoral veins were present on 177 (46%) of the 381 venograms 149 (84%) were duplex systems. False-negative US findings occurred in four (2%) of 204 patients with single femoral veins and in 10 (6%) of 177 patients with duplicated femoral veins (P = .056, not statistically significant). The frequency of missed proximal thrombosis at sonography appears to be increased when duplicated superficial femoral veins are present. Data from clinical and imaging studies are insufficient to support the adoption of a totally noninvasive imaging strategy.

Authors' abstract