

We propose a new paradigm that uses these techniques to prevent access site exhaustion in patients who do not respond to anticoagulation therapy. This approach may reduce morbidity and mortality in patients with chronic access needs and the need for intestinal transplantation in patients with intestinal failure” Sullivan et al (2018).

Abstract:

Central venous thromboses are common and pose challenges in the care of chronically ill pediatric patients. Among patients with intestinal failure (most commonly because of short bowel syndrome) who depend on parenteral nutrition, progressive loss of central venous access sites is a potentially fatal complication. We present the case of a 5-year-old girl with parenteral nutrition-dependent short bowel syndrome and no remaining standard central venous access sites despite medical anticoagulation, in whom angioplasty and stent implantations were used to reconstruct chronically occluded central veins. The patient presented with a bloodstream infection necessitating tunneled central venous line removal from the left internal jugular vein. All other standard access sites had known occlusions. The right iliofemoral vein (RIFV) and infrarenal inferior vena cava were recanalized and dilated with high-pressure balloons. The left internal jugular line was removed and a line was placed in the now-patent RIFV for antimicrobial therapy. After treatment, the RIFV line was removed and the vessels were stented open for future access. The occluded left innominate vein was recanalized and dilated to allow a new tunneled line to be placed. At 10 months, the line was functional and uninfected and the RIFV and inferior vena cava stents were patent without in-stent restenosis. We propose a new paradigm that uses these techniques to prevent access site exhaustion in patients who do not respond to anticoagulation therapy. This approach may reduce morbidity and mortality in patients with chronic access needs and the need for intestinal transplantation in patients with intestinal failure.

Reference:

Sullivan, P.M., Merritt, R., Pelayo, J.C. and Ing, F.F. (2018) Recanalization of Occluded Central Veins in a Parenteral Nutrition-Dependent Child With No Access. *Pediatrics*. 141(Suppl 5), p.S416-S420.

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