

## Use of the Artegraft in Salvage of Arteriovenous Fistulas for Dialysis

Leeser DB<sup>1</sup>, Niederhaus S<sup>1</sup>, Rosenberry P<sup>2</sup>, Schweitzer E<sup>1</sup>

<sup>1</sup>University of Maryland Medical School, Baltimore, MD, USA

<sup>2</sup>Shore Regional Health System, Baltimore, MD, USA

**Objectives:** Patients with arteriovenous fistulas for hemodialysis can develop problems including steal, congestive heart failure (CHF), prolonged bleeding post cannulation and aneurysmal dilation. We present a series of 14 patients with fistula problems that were repaired using artegraft wraps around the fistula to decrease flow in the cases of CHF and steal, to prevent redilation of the fistula following plication or to provide a substrate around the fistula on which clot can form for hemostasis.

**Methods:** The charts of 14 patients who underwent revision of their fistulas were reviewed. Of the charts reviewed, 5 patients had steal, 2 CHF, 6 aneurysmal dilation and 1 patient with prolonged post cannulation bleeding without outflow obstruction. The artegraft was used as a 1 cm band in the case of steal syndrome or CHF and as a complete wrap of the fistulae following plication. The degree of narrowing by the band was determined using flow probes to halve the flow combined with palpation of the radial pulse and pulse oximetry measurements of the hand.

**Results:** None of the fistulas thrombosed and all were able to continue to be used as the patients' primary access. All cases of steal and CHF resolved following banding with artegraft. The patient with prolonged post cannulation bleeding is doing well with excellent hemostasis following dialysis.

**Conclusions:** The artegraft provides a safe and simple biological material for revision and salvage of native arteriovenous fistulas.