Initial experience and outcome of a new hemodialysis access device for catheter-dependent patients

Objective: The effects of a new long-term subcutaneous vascular access device were studied in access-challenged patients who were poor candidates for fistulas or grafts due to venous obstruction. Bacteremia rates, patency, and function of the Hemodialysis Reliable Outflow (HeRO) Vascular Access Device (Hemosphere Inc, Minneapolis, Minn) were evaluated.

Methods: The HeRO device consists of a 6-mm expanded polytetrafluoroethylene graft attached to a 5-mm nitinol-reinforced silicone outflow component designed to bypass venous stenoses and enter the internal jugular vein directly, providing continuous arterial blood flow into the right atrium. The HeRO device was studied in a multicenter clinical trial to test the hypothesis that access-challenged patients would experience a statistically significant reduction in bacteremia rates compared with a tunneled dialysis catheter (TDC) literature control of 2.3/1000 days. HeRO-related bacteremia rates, adequacy of dialysis, patency, and adverse events were analyzed.

Internal Carotid Artery Stenting in Patients over 80 Years of Age: Single-Center Experience and Review of the Literature

It has been estimated that 30-40% of strokes in octogenarians are secondary to carotid bifurcation steno-occlusive disease. In addition, because of aging of the general population, the number of patients with symptomatic extracranial internal carotid artery (ICA) stenosis is increasing.

Age (ie, ≥80 years old) was one of the exclusion criteria for carotid endarterectomy (CEA) in the North American Symptomatic Carotid Endarterectomy Trial (NASCET) and the Asymptomatic Carotid Atherosclerosis Study (ACAS). The exclusion of this patient population was secondary to the high rates of peri-procedural morbidity and mortality.

Carotid artery stenting (CAS) has been used safely in high-risk symptomatic patients as an alternative to CEA. However, CAS may be associated with increased peri-procedural complications in patients ≥80 years old. In particular, in one of the largest single-center series of CAS, age more than 80 years was a predictor of 30-day stroke and death.

Because ICA steno-occlusive disease, particularly in patients more than 80 years old, leads to severe disability and death, we reviewed our experience of CAS in this patient population.

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