

Arteriovenous shunts provide a good alternative to CVAD and carry a lower risk of complications. AVSs allow earlier start of prophylaxis and home therapy with an improved quality of life for patients and families” Them et al (2018).

Abstract:

INTRODUCTION: Venous access is essential in patients with haemophilia for administration of factor concentrates. Peripheral venipuncture may be challenging, particularly in young children or during immune tolerance induction (ITI). Central venous access devices (CVADs) carry a significant risk for complications. An alternative for venous access is peripheral arteriovenous shunts (AVSs), but there is sparse documentation in the literature. The aim of this study was to document our experience with AVS over 12 years in 27 boys with severe haemophilia.

METHODS: For AVS creation, a subcutaneous vein is connected end-to-side with an artery at the wrist (Cimino) or at the forearm (Gracz shunt). Factor concentrates were substituted as for intermediate size surgery. To prevent shunt occlusion, heparin (5 units/kg/h) was given during the first 3 days.

RESULTS: Indications for AVS creation were prophylaxis start (n = 20) and ITI (n = 7). Age at shunt insertion was median 1.5 years (minimum 8 months; maximum 11.7 years). Shunt maturation was achieved within a median of 3 weeks after surgery (1.5 weeks; 18 weeks). Age when home treatment was established was median 2.1 years (9 months; 11.7 years). Four patients required AVS revisions due to stenosis, but 26 of 27 patients (96%) achieved good long-term shunt function. There were few other complications.

CONCLUSION: Arteriovenous shunts provide a good alternative to CVAD and carry a lower risk of complications. AVSs allow earlier start of prophylaxis and home therapy with an improved quality of life for patients and families.

Reference:

Thom, K.E., Hölzenbein, T., Jones, N., Zwiauer, K., Streif, W., Gattringer, S. and Male, C. (2018) Arteriovenous shunts as venous access in children with haemophilia. *Haemophilia*. March 24th. .

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