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Arterio-Venous Fistula Using Nonpenetrating Titanium Clips (VCS)

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Abstract

Vascular access in haemodialysis is still accompanied by a high morbidityrate. Neointimal hyperplasia due to thrombosis is one of the main causes of vascular access failure. The purpose of this paper is to present the use of non-penetrating titanium clips (VCS) forthe creation of an arteriovenous fistula and its outcome.

Materials and Methods: A male patient, 47 years old, with end-stage renal disease - ESRD - (2005) was addressed to our service, for a vascular access reintervention, after a failed forearm radio-cephalic fistula performed 3 months before. In January 2007, an arteriovenousfistula between thebrachial artery and themedian cubital vein using non-penetratingtitanium clips (Anastoclip VCS) was created.

Results: The vascular anastomosis was performed in 17 min. After unclamping the artery, a solid pulse and consistent thrill were obtained at the level of the cubital fossa. The postoperative course was uneventful. The arteriovenous fistula remains functional 60 months post-surgery.

Conclusions: The Anastoclip VCS system is versatile, safe to manipulate and enables fast anastomosis. Arteriovenous anastomosis performed with non-penetrating clips may be a solution with the potential to reduce postoperative complications and extend arteriovenous fistula patency in ESRD.

Key words: haemodialysis, arterio-venous fistula, titanium non-penetrating clips

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