

Chapter 13

Therapeutic Occlusion of Dysfunctional Accesses

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Most of the time, interventionists are called upon to open dysfunctional accesses which are either stenosed or thrombosed. However, percutaneous occlusion is exceptionally performed on malfunctioning accesses, for instance, those with intractable edema unamenable to any form of conventional surgical therapy.

In the past, embolization coils or detachable balloons were selectively placed upstream to venous outflow stenoses which in a way acted as safety valve against pulmonary embolization should they become dislodged.

More recently, the Amplatzer vascular plug II, a self-expandable nitinol mesh, has been the subject of several publications in the radiology literature on occlusion of accesses with edema, hyperflow, aneurysms, or distal ischemia [1]. Its advantage is its immediate technical success rate of close to 100 %. However, some of the clinical indications for use, like occlusion of tributaries, remain controversial.

Reference

1. Powell S, Narlawar R, Odetoyinbo T et al (2010) Early experience with the Amplatzer Vascular Plug II for occlusive purposes in arteriovenous hemodialysis access. *Cardiovasc Intervent Radiol* 33:150–156

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