Acute limb ischemia due to retention of collagen plug

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Introduction: Vascular closure devices following cardiac catheterization through the femoral artery have been gaining significant traction since its use in the mid-1990s. Compared to the previous gold standard of manual compression, VCDs allow for shortened time to ambulation, decreased duration of hospitalization post procedure, and quicker hemostasis. Despite the many advantages and variety of devices available, there are still complications to take into account.

Methods: A comprehensive literature search was performed on the internet including textbooks and journals on the topic of prevalences of thrombi involving vascular closure devices post cardiac catheterization. Information was scarce and we were unable to find any meta-analysis studies on the condition indicating the opportunity for further research in this topic. Pertinent information was included on our retrospective case report.

Case Report: We present a 74-year-old Caucasian female with past medical history of hypertension and aortic valve insufficiency who presented to the hospital with a chief complaint of intermittent right lower extremity pain beginning shortly after left heart catheterization. Patient stated her symptoms began two weeks prior to presentation, shortly after a recent left heart catheterization for persistent chest pain. A 6 French Angio-Seal VIP vascular closure device was used. Significant leg pain after walking a short distance was also reported.

Results: A right femoral thrombus was discovered on testing. The patient underwent successful angioplasty of the right common femoral artery with thrombectomy. A spider catheter was then deployed to perform the thrombectomy, however complications ensued and the patient was taken to the operating room for vascular surgery. The spider basket was retrieved through the wall of the common femoral artery with its contents. Pathology noted a foreign body surrounded by soft tissue attached to the spider device. The foreign body was identified as an Angio-Seal plug from the left heart catheterization that had been presumed a thrombus.

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