## IMAGES IN SURGERY

## IATROGENIC BRACHIOCEPHALIC ARTERIOVENOUS FISTULA

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A 67-year-old woman with end-stage renal disease, on peritoneal dialysis, complained of spontaneous bleeding through a painful, pulsatile, progressively growing mass in the right cubital fossa that had appeared about 2 months previously (Figure 1). The patient reported that she had been punctured in that region before the onset of symptoms to collect blood for analysis. Doppler ultrasound showed a fistula communicating between the right cephalic vein and brachial artery (Figure 2A – V (vein); A (artery); Arrow (fistulous tract)), with triphasic flow in the vein (Figure 2B). The diagnosis of iatrogenic brachiocephalic arteriovenous fistula was made. The fistula was marked by ultrasound and ligated under local anesthesia with improvement of the symptoms. Persistent cutaneous vascular lesions post-venous puncture should raise suspicion of arteriovenous fistula, underscoring the need to avoid transfixing punctures. This experience underscores the significance of early diagnosis of spontaneous vascular skin lesions and appropriate management avoiding the development of larger, more complicated arteriovenous malformations.



