AMPLATZER® Vascular Plug II Case Study

Embolization of a Renal Artery Aneurysm with the AMPLATZER® Vascular Plug II

David Siegel, MD
Stephanie Soohoo, MD
Long Island Jewish Medical Center
New Hyde Park, New York

Diagnosis

A healthy 48 year old female presenting with nonspecific abdominal pain was found to have a 3.6cm x 2.1cm right renal artery aneurysm on CT scan (Figure 1). Selective angiography identified the aneurysm arising from the right main renal artery at the point of its major division (Figure 2). “Beading” of the distal main renal artery, a common appearance of the medial form of fibromuscular dysplasia was also noted.

Procedure

Multiple oblique views were obtained after catheterization of the right main renal artery and the aneurysmal sac with a 5 French Cobra-tip diagnostic catheter. These views demonstrated that all renal artery branches originated from the proximal aspect of the aneurysm.

The catheter within the aneurysmal sac was exchanged for a 7 French curved sheath over a 0.035” guidewire and the tip positioned within the aneurysm. A 22 mm diameter AMPLATZER® Vascular Plug II was advanced into the aneurysmal sac and angiography was performed prior to detachment to ensure patency of the renal artery branches (Figure 3 on opposite page).

The initial deployment was successful in positioning the plug at the apex of the aneurysm without impinging on the branch origins. We believe that the AVP II was a good choice of an embolic in this case, based on the accuracy with which it can be placed as well as the decrease in procedure time and expense otherwise associated with the use of the numerous coils.

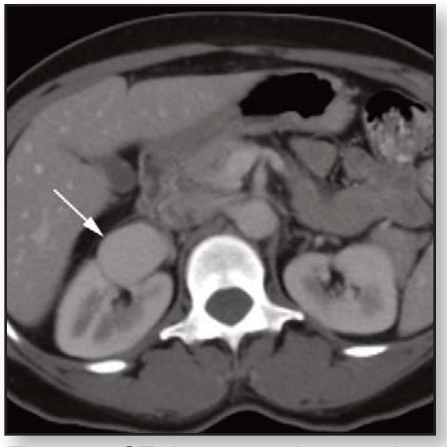

Figure 1: CT demonstrating renal anerysm

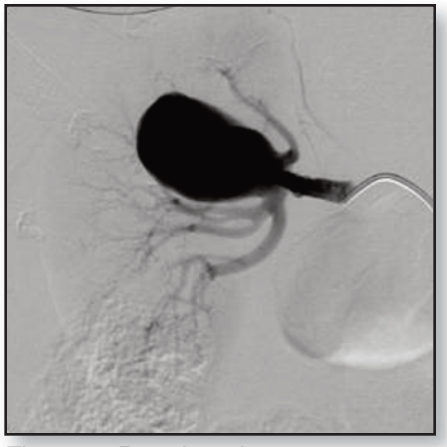

Figure 2: Renal angiogram demonstrating bifurcation aneurysm

Angiography confirmed partial thrombosis of the aneurysmal sac twenty minutes after device deployment (Figure 4). The total procedure time was 45 minutes and the total fluoroscopy time was 6 minutes.

Follow-up

The patient returned approximately six weeks later for follow-up angiography to determine the extent of thrombosis. Selective right renal angiography demonstrated occlusion of the vast majority of the aneurysmal sac with patency of the renal artery branches emanating from the base of the aneurysm (Figure 5). The patient is currently asymptomatic and will be followed with yearly CT scanning.

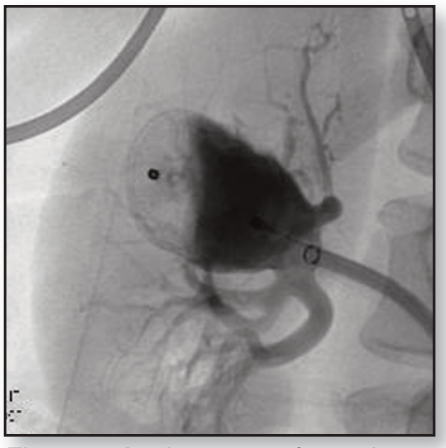

Figure 3: Angiogram performed prior to AVP II detachment

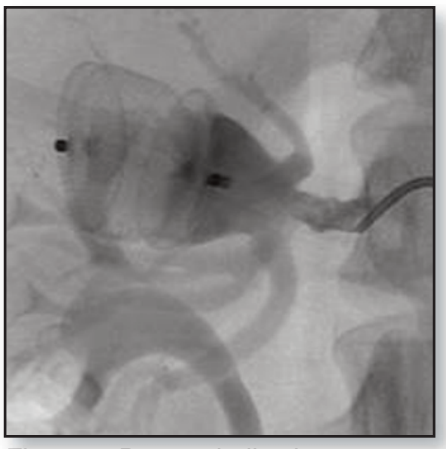

Figure 4: Post embolization angiogram

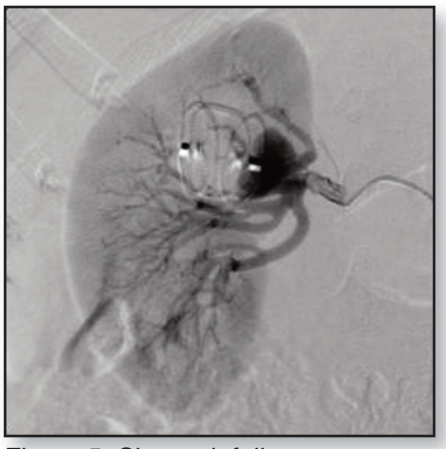

Figure 5: Six week follow-up angiogram

AGA MEDICAL CORPORATION

AGA Medical Corporation
5050 Nathan Lane North
Plymouth, MN 55442 U.S.A.

(888) 546-4407 **Toll Free**
(763) 513-9227 **Phone**
(763) 513-9226 **Fax**
info@amplatzer.com **Email**
www.amplatzer.com **Internet**

MM00373 (01) Global 01/09