

# Renal Angiomyolipoma Embolization with Flexible Microcatheter

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A 35-year-old woman with a history of multiple angiomyolipomas (AMLs) of the right kidney presented with severe right flank pain and hypotension after a fall. The patient's hematocrit on admission was 26%. Emergency contrast-enhanced computed tomography (CT) scan showed a perirenal hematoma and findings indicative of rupture of at least one of the AMLs (Figure 1, arrow). The patient was referred to the interventional radiology services for emergency angiography. After selective catheterization of a lower polar artery of the right kidney using a 5 French (F) Cobra-1 catheter, a thin branch was considered as a potential feeder of the AML on the basis of its location and course (Figure 2, arrows). However, no tumor vasculature could be detected on angiography through the Cobra-1 catheter. Super selective catheterization of this thin branch was achieved using a 2.7 F Fathom microcatheter (early phase, Figure 3, arrow). Angiography through this microcatheter revealed several branches which were considered as tumor-feeding (late phase, Figure 4, arrows). To facilitate catheterization of the origin of the lower polar artery branch, the guidewire of the microcatheter was shaped in the form of a shepherd's hook, according to a previously described technique.<sup>(1)</sup> Embolization of AML feeders was performed through the Fathom microcatheter using Embozene microspheres (Embozene; Celonova BioSciences, Peachtree City, Georgia, USA) with a diameter of 250 and 400  $\mu\text{m}$ . A post-embolization angiogram confirmed occlusion of the tumor feeders (Figure 5). The patient's recovery was uneventful and no recurrence of the hemorrhage occurred.



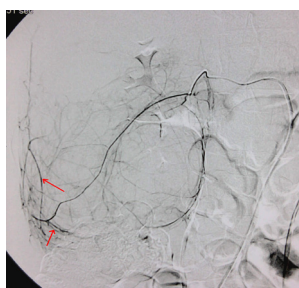
**Figure 1.** Emergency contrast-enhanced computed tomography scan shows a perirenal hematoma (arrow).



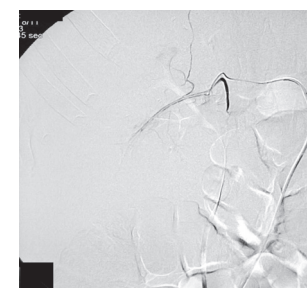
**Figure 2.** Selective catheterization of a lower polar artery of the right kidney demonstrates a thin branch (arrows).



**Figure 3.** Super selective catheterization of thin branch using a 2.7 F Fathom microcatheter (early phase, arrow).



**Figure 4.** Angiography through microcatheter revealed several branches which were considered as tumor-feeding (late phase, arrows).



**Figure 5.** Post-embolization angiogram shows occlusion of the tumor feeders.

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Received December 2012  
Accepted December 2013

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