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Case report: Prostatic artery embolization using Guerbet's new SeQure® 1.9Fr microcatheter

Ari Isaacson (Prostate Centers USA, Raleigh, USA) outlines a recent prostatic artery embolization (PAE) case using the new SeQure 1.9Fr microcatheter from Guerbet. Post-embolization imaging suggested a "thorough occlusion" of the prostatic branches, demonstrated by marked opacification of the intraprostatic branches, Isaacson tells *Interventional News*.

A 71-year-old male presented with multiple lower urinary tract symptoms secondary to benign prostatic hyperplasia despite taking tamsulosin. In his opinion, his worst symptom was nighttime urination, as he was waking to urinate three to four times a night. His International Prostate Symptom Score (IPSS) was 25 and his Quality of Life score was 5. The patient had a previous prostatic artery embolization (PAE) eight months prior after which he experienced markedly improved urinary symptoms (IPSS from 28 to 10). However, after five months, his symptoms began to worsen again prompting his return for a repeat PAE. His prostate volume prior to his second PAE was 85ml.

Right common femoral access was obtained under ultrasound guidance and a 5Fr catheter was advanced up and over the aortic bifurcation into the left internal iliac artery. Ipsilateral oblique digital subtraction angiography (DSA) revealed moderate stenosis of the

distal left internal iliac artery. The obturator artery was absent, suggesting an aberrant origin from the inferior epigastric artery. The prostatic artery was seen arising from a common trunk with the superior vesical artery (Figure 1). A 1.9Fr 130cm SeQure microcatheter was inserted and a 0.014" guidewire was used to manipulate the catheter into the left prostatic artery. Selective angiography demonstrated prominent staining of the left hemiprostate without

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Ari Isaacson

reflux of contrast (Figure 2). This was thought to be due to the reflux control mechanism of the SeQure microcatheter. One milligram of verapamil was then administered through the microcatheter and embolization was performed with 200µm spherical particles until the blood flow

was sluggish. A small amount of thick gel foam slurry was then injected to achieve complete stasis. Post-embolization imaging demonstrated marked opacification of the intraprostatic branches, suggesting a thorough occlusion of the prostatic branches (Figure 3). The microcatheter was removed and a Waltman Loop maneuver was used to manipulate the 5Fr base catheter into the right internal iliac artery. Ipsilateral oblique angiography revealed that the prostatic artery was arising from the proximal internal pudendal artery (Figure 4). The 1.9Fr SeQure microcatheter was again inserted and manipulated into the prostatic artery. It was able to be advanced distally despite an acute angle at the origin of the artery. Selective angiography from the prostatic artery demonstrated that there was a small amount of residual perfusion in the right hemiprostate after the prior PAE (Figure 5). Embolization was again performed to stasis with 200µm particles and gel foam slurry (Figure 6). Total procedure time was 65 minutes. Fluoroscopy time was 24 minutes and total radiation dose was 336mGy.

Ari Isaacson is chair of Quality & Research and an interventional radiologist at Prostate Centers USA in Raleigh, USA. He has received consulting and speaker honoraria from Guerbet.

Disclaimer: Results from this case report are not necessarily predictive of results in other cases. Results in other cases may vary.

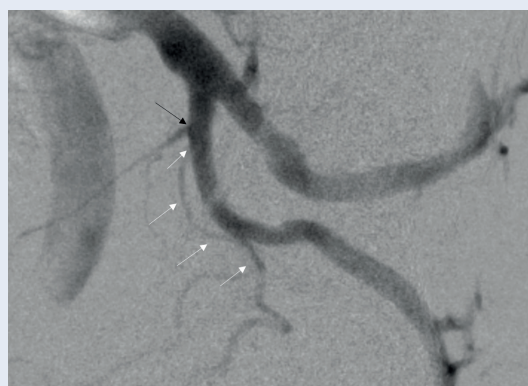


Figure 1: Ipsilateral oblique angiogram of the left internal iliac artery showing the prostatic artery (white arrows) arising from a common trunk with the superior vesical artery (black arrow).

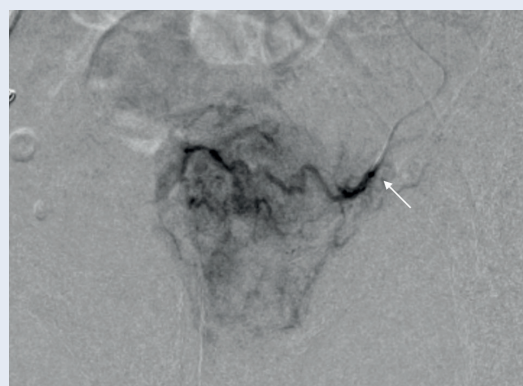


Figure 2: Selective angiogram with SeQure 1.9Fr microcatheter in the prostatic artery demonstrating excellent visualisation of intraprostatic branches without reflux of contrast proximal to the catheter tip (white arrow).

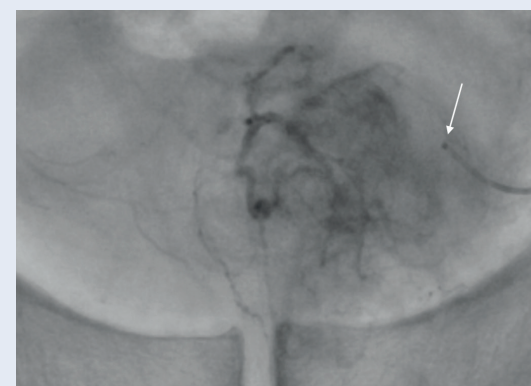


Figure 3: Positioning of the SeQure 1.9Fr microcatheter tip distal within the prostate with excellent opacification of intra-prostatic branches after embolization.



Figure 4: Ipsilateral oblique angiogram of right internal iliac artery showing the course of the right prostatic artery (arrows) which is arising from the proximal internal pudendal artery (circle). Coil seen in image was placed during prior PAE.



Figure 5: Selective angiogram of right prostatic artery showing only a small amount of residual perfusion of the right hemiprostate after prior PAE (circle). Again no reflux of contrast is seen proximal to the tip of the SeQure 1.9Fr microcatheter (arrow).

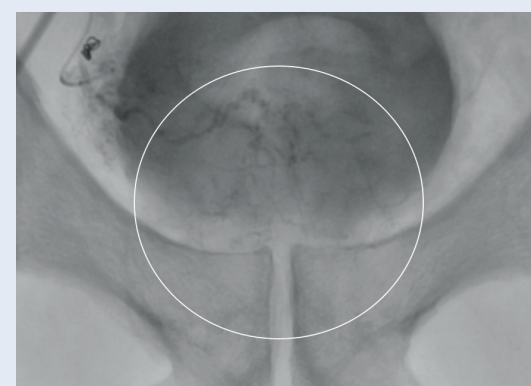


Figure 6: Fluoroscopic image after embolization of both sides of the prostate showing good opacification of the intraprostatic branches (circle) suggesting occlusion of these arteries.