Extreme tortuosity of the iliac artery

A 76-year-old woman underwent coronary catheterization via the right femoral artery. Arterial puncture was clean and the sheath was inserted over the wire but difficulty advancing the guide wire necessitated a change to a hydrophilic wire. Under fluoroscopy the wire formed a complete loop in the common iliac artery (*Figure 1*). The left femoral approach was not attempted as a similar problem as anticipated. Contrast computed tomography of the pelvic vessels and aorta showed an unusually tortuous right iliac artery with complete loop formation (*Figure 2*). The left iliac artery was also tortuous. The patient underwent radial coronary angiography.

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Early identification of tortuous iliac arteries is important, as they can lead to kinking and knotting of catheters causing spasm and perforation. Besides complicating vascular procedures, they increase fluoroscopic time and radiation dose, and have been associated with endovascular fibrosis (Lim et al, 2009). Computed tomography is useful in providing an accurate three-dimensional picture to prevent complications. BJHM

Lim CS, Gohel MS, Shepherd AC, Davies AH (2009) Iliac artery compression in cyclists: mechanisms, diagnosis and treatment. *Eur J Vasc Endovasc Surg* **38:** 180–6

Figure 1. Fluoroscopy showed guidance wire forming a complete loop in the common iliac artery.

Figure 2. Contrast computed tomography of pelvic vessels and aorta showed an unusually tortuous right common iliac artery with a complete loop formation.