

Excluding an iliacal artery aneurysm with the new Cardiatis Peripheral Multilayer Stent

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Introduction:

A 16 year old girl with an aortic coarctation was successfully treated by stent implantation. Two weeks later, signs of claudication of the right leg appeared due to an obturated iliacal artery. A balloon dilation of this vessel was performed with a good result. Four weeks later in follow up, an MRI was arranged, showing a small sized aneurysm of the iliacal artery. Further three month later, the MRI was repeated, detecting a growing aneurysm.

Method/Result:

Finally, the patient went back in the cath lab for the third time: a six french sheath was inserted in the right femoral artery, a four french sheath in the left femoral artery. After cross over angiography from the left side, the right iliacal artery with an almost seven cm long aneurysm was visualized. Knowing the diameters from the MRI, the left iliacal artery had a diameter of six mm. According to the implantation table, an eight cm long peripheral multilayer stent CPMS, Cardiatis (Isnes, Belgium) with a diameter of seven mm was successfully implanted via the six french sheath and excluded the aneurysm entirely.

Conclusion:

This new Multilayer Stent is a self-expandable device with a tridimensional mesh of cobalt alloy wires interconnected in multiple layers. This new stent generation is very flexible and reduces flow velocity within the aneurysm vortex while improving laminar flow in the main artery. These favourable characteristics makes this stent a good option for excluding peripheral aneurysms, even in adolescents. Follow up data (MRI) are not available so far, but will be demonstrated in Helsinki.