

## TREATMENT OF TAKAYASU ARTERITIS WITH SELF-EXPANDABLE STENT

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A fifteen-year-old adolescent was admitted to our department suffering from Takayasu arteritis with arterial hypertension and reduced exercise tolerance. Despite triple medication for arterial hypertension with Amlodipin, Bisoprolol and Furosemide, systolic blood pressure was at the level of 150 mmHg (> 95th). The non-invasive pressure gradient between the upper and the lower extremities was 40 mmHg. The computed tomography has shown a long segmental stenosis of the abdominal aorta which was extended beyond the origin of the renal arteries. Angiography was performed. The diameter of the abdominal aorta was 12 mm with a long segment stenosis at the level of renal arteries and stenosis diameter of 4 mm (75% stenosis, Fig. 1). The pressure gradient over the stenosis was 50 mmHg. The balloon dilatation of the stenosis did not improve the existing pressure gradient on the one hand, but excluded a resistant stenotic lesion on the other hand and clarify the indication for a stent implantation. Due to the length of the stenotic segment, a self-expandable stent of 12 mm x 50 mm (Epic Boston Scientific corp., Fig. 2) was implanted. The immediate results was a decrease of the pressure gradient to 10 mmHg and a drop of the invasive pressure measurement above the stenosis from 155 mmHg to 123 mmHg. At follow up one week after intervention, the patient's blood pressure at the upper limbs has been reduced at 120 mmHg (with the same medical treatment) and there was no significant gradient in blood pressure between upper and lower limbs.

### CONCLUSION

The use of a self-expandable stent for the invasive treatment of abdominal aortic stenosis in Takayasu arteritis is safe and can be used as an alternative to surgery.



Fig. 1



Fig. 2