Surgical treatment of an aneurysm of the ileocolic artery

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Objective
Aneurysms of the ileocolic artery or the superior mesenteric artery (SMA) are a rare entity but can be a life threatening because of potential rupture. The most common symptom exhibited in patients is abdominal pain. Advanced imaging technology led to increased incidental detecting of asymptomatic aneurysms.

Case
Case report of a 69 years old female patient. She presented with back pain radiating to the lower abdomen on both sides since several months. In the abdominal ultrasound a suspicious superior mesenteric artery was detected.

Computer tomography showed a 3x2.2x2 cm aneurysm directly at the origin of the ileocolic artery.

The case was discussed in our interdisciplinary vascular conference. Since the beginning of the aneurysm was right at the origin of the ileocolic artery and the vessel after the aneurysm was of quite large diameter we estimated a high risk for complications in endovascular treatment (end-organ ischemia, embolisation, failure). Therefore we decided for an elective open surgery.

Results
We performed a long midline incision. The SMA before and after the origin of the ileocolic artery plus the ileocolic artery distal of the aneurysm was identified.

After clamping, the aneurysm was resected and a vein bypass (greater saphenous vein) from the SMA to the ileocolic artery, distal of the resected aneurysm, was created.

Conclusion
Due to the lack of prospective studies there is no clear consensus about the indication or technique of treatment (open or endovascular approach) of splanchnic aneurysms. Endovascular treatment is limited to patients with a suitable aneurysm anatomy. In open surgery cases of simple ligation aside from revascularization surgery have been described. In this elective case we have chosen open surgery and revascularization by venous bypass as definitive treatment with good outcome. Because of the small number of patients and the diverse etiology, the treatment should be tailored to the individual patient in an interdisciplinary consensus.