

### **3D for D3: Role of Imaging for Right Colectomy in a Case with Congenital Superior Mesenteric Vein Aneurysm and Co-Existing Anomalous Irrigation**

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#### **Abstract**

*Background:* The D3 right colectomy for cancer requires dissection in the vicinity of the superior mesenteric vessels, which requires preoperative 3D imaging in these patients.

*Case report:* We present a patient with a caecum adeno-carcinoma cancer which underwent D3 resection of the right colon, preceded by pre-operative MDCT with 2D multiplanar reconstruction and 3D volume rendering.

*Results:* The dataset analysis revealed a rare congenital aneurysm of the superior mesenteric vein below the spleno-mesenteric confluence and a co-existing anomalous irrigation in the form of an ileo-mesenteric trunk. The surgical procedure was carried out as planned and the patient presents no signs of recurrence of the disease one year after the intervention.

*Conclusions:* The case presented – with a rare and complicated vascular situs – illustrates particularly well that multimodal post-processing of the CT dataset for volume rendering allows proper assessment of the arrangement of pertinent blood vessels, and, consequently in the planning, setup and accomplishing the delicate operation, avoiding the surgical pitfalls and iatrogenic injuries.

**Key words:** colectomy, mesenteric veins, aneurysm, computerized tomography, gastrocolic trunk

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