Preoperative segmentation of MultiDetector Computed Tomography Angiography (MDCTA)—solution to vascular variations

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The article by Du *et al.* (1) has caught our attention. The case has been thoroughly presented within the framework of colonoscopy, CT scan, surgical findings, gene sequencing, light microscopy and immunohistochemistry. Our Right Colon Cancer (RCC) study group has accomplished 650 colectomies of the right colon for cancer to this date, with extended mesenterectomy and D3 lymphadenectomy. We regularly perform a minute manual segmentation with 3D reconstruction on preoperative MultiDetector Computed Tomography Angiography (MDCTA) (2-4), which serves as a powerful tool for road-mapping and surgical planning, particularly when the complex, rare and unexpected anatomical variations may occur (2,4). In one of our cases (2), we found a similar (*Figure 1*), but not identical case as reported by Du *et al.* We found that the ileocolic artery was very short and promptly divided to the left of the superior mesenteric vein. Further, a preoperative MDCTA segmentation offers the possibility of 3D printing (3), which adds to the practical anatomical orientation before and even during operation. Therefore, we strongly advocate this method for

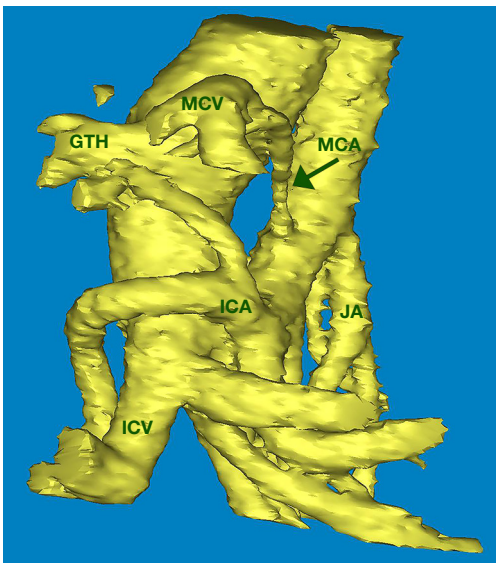

Figure 1 A STL file, segmented from the MDCTA. Reused with permission from (2). GTH, gastrocolic trunk of Henle; MCV, middle colic vein; MCA, middle colic artery; ICA, ileocolic artery; ICV, ileocolic vein; JA, jejunal artery; MDCTA, MultiDetector Computed Tomography Angiography.

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preoperative orientation of surgeons.

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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