

## Regarding online publication of ‘CT appearance of the duodenum and mesenteric vessels in children with normal and abnormal bowel rotation’

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Sir,

I found Dr. Taylor’s publication “CT appearance of the duodenum and mesenteric vessels in children with normal and abnormal bowel rotation” [1] to be fully supportive of our own embryological- and anatomical-based US experience [2–4] and a decade old adult CT literature [5] proving that cross-sectional imaging, particularly US in children, is the modality of choice for excluding malrotation with 0% false-positive rates versus up to 15% with UGI [6–8].

Although we should be pleased with a single presumed false negative in his malrotation group, with extreme reluctance I hereby respectfully express my reservations regarding the author’s characterization of the crucial anatomical landmarks in his false-negative case. As a reminder, the D3, aside from being between the aorta and the SMA, is anterior to the left renal and posterior to the jejunal veins and adjacent to the uncinate process, which all happen to be at the level of the renal hili shown by author’s normal example (Fig. 1). Absence of these neighboring structures indicates that the imaging plane is inferior to where it should be [2–4].

Specific reservations are as follows:

Regarding Fig. 2a

(1) The presumed D3 is at a much lower plane than what the author has called “normal anatomical location” because neither the kidneys, the jejunal and the left renal veins nor the uncinate process is seen.

(2) The presumed D3 is lower than its presumed position in two other views.

(3) The author characterized the case as “partial rotation,” whereas crossing D3 beyond the midline to the left side in his case is contrary to such characterization [9].

(4) The presumed SMA is less dense and wider in diameter with a fuzzier border than it is in coronal reconstruction.

Fig. 2b

(5) With “SMA” anterior to the aorta in the axial plane, the aorta and SMA should have been perfectly aligned in the sagittal plane with D3 in between. Sagittal reconstruction shows neither the aorta nor the SMA takes off nor the D3 in between because it is reformatted outside the midline plane where the three crucial structures are seen in the axial image, begging for submission of the revised Fig. 2b.

Fig. 2c

(6) The presumed D3 is not convincingly posterior to the SMA and is higher than the presumed D3 in Fig. 2a.

Preoperative UGI, its report and postoperative surgical notes can convince the readers as to the accuracy of the preoperative and intraoperative diagnoses, the premise on which this case is based.

The author concludes that the retroperitoneal location of D3 is simply not enough, recommending additional imaging, assuming that we are conscious of our own imperfections preoperatively and not satisfied with 0% false positive and allegedly 2.9% false negative, or 97.3% sensitivity and 99% specificity, in comparison with up to 15% error rate encountered in UGI [6–8].

By providing additional information, the author will convince the naysayers that the cross-sectional imaging is indeed the only trustworthy anatomical- and embryological-based modality for imaging malrotation and in full compliance with the ALARA principle and the Image Gently campaign.

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