Commentary Regarding “Computed Tomography Imaging Features and Classification of Isolated Dissection of the Superior Mesenteric Artery”

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Isolated superior mesenteric artery dissection (SMAD) is a pleomorphic disease. A systematic approach requires adequate classification. The purpose of classification is to organize patients into groups, which should be clinically informative in order to assist medical decision making. Four classification systems, which were all devised based on the imaging appearance of the SMAD, have been proposed over recent years;1–4 however, no consensus has emerged regarding which classification system should be used.

Sakamoto et al.1 categorized SMAD into four types. However, they did not consider the type of total thrombotic occlusion of the SMA. Yun et al.2 categorized SMAD into three types, but they did not consider thrombosed false lumen with ulcer-like projection. Zerbib et al.3 categorized SMAD into six types. However, SMAD with retrograde propagation of the false lumen to the SMA ostium wasn’t addressed. Luan and Li4 categorized SMAD into four types, but they did not consider the true and the false lumen itself, such as the shape, the thrombosed false lumen, and stenosis of the true lumen.

The main anatomic and physio-pathologic features of SMADs are the location, extent of the false lumen, and the distinction between thrombosed or not false and true lumen. All four classification systems take into account some of these anatomic features. However, they are all incomplete. What we need is a simple system that allows exhaustive description of all anatomic types of SMADs and meets both the capabilities of modern imaging techniques and the demands of an ever-growing treatment armamentarium.

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Response to ‘Re. Computed Tomography Imaging Features and Classification of Isolated Dissection of the Superior Mesenteric Artery’

We thank Dr. Jia and his colleagues for their comments on our recently published paper.1 And we agree that a simple and comprehensive classification scheme is needed to describe the imaging features of the superior mesenteric artery dissection. However, it is technically difficult to include all imaging features, such as the location and length of dissection, and whether the true lumen and false lumen are thrombosed or occluded, in one classification scheme.

The previous three classification schemes are all based on the view of radial point and whether the true lumen and false lumen are occluded or thrombosed. As total thrombotic occlusion of the superior mesenteric artery is not included in Sakamoto’s classification scheme,2 and Zerbib’s classification scheme3 is too complicated to apply in clinical practice, Yun’s classification scheme4 seems to be the simplest and most commonly used one.

From an axial point of view, our classification scheme is based on the location and length of the dissection and correlates with the pain severity. Thus, the dissection of the superior mesenteric artery can be well described by this scheme combined with Yun’s classification scheme. For example, when a dissection is limited to the curved part of the superior mesenteric artery with visible false lumen but without visible re-entry site, we may describe it as a type B-
lll. And when the dissection extends to the distal trunk of the superior mesenteric artery with thrombosed false lumen and occluded true lumen, we may describe it as a type C-III.

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Response to ‘Left Renal Vein Division During Open Surgery of Abdominal Aortic Disease: A Propensity Score-matched Case-Control Study’

Thanks for the comment. Some studies indicate that left renal vein division (LRVD) is a safe procedure during aortic surgery and some demonstrate it’s association with postoperative renal insufficiency, especially in pararenal aortic aneurysm repair.1,2 The purpose of our study is to try to answer the question of whether LRVD leads to some deleterious effects or is only a marker for the complexity of the operative procedure. It’s hard to really understand the fate of the left kidney after LRVD because there has been no study evaluating split renal function. However, we do believe that the left renal vein (LRV) should be reconstructed in juxtarenal AAA patients who require suprarenal aortic clamping, in patients lacking collateral tributaries for drainage of the left kidney, or in patients with preoperative chronic renal insufficiency. Beyond this, our study confirms LRVD without reconstruction is safe for infrarenal abdominal aortic disease in Chinese patients, who have a younger average age and better preoperative renal function compared with Western populations.3

Marrocco-Trischitta et al.4 reported the safety of LRV reconstruction. Maybe it’s because of different anatomies in the treated population that we encounter the complications of intra- or postoperative bleeding associated with LRV reanastomosis. Therefore, in well-selected patients, we consider LRVD without reconstruction to be safe and can simplify the whole procedure.

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Re. ‘Left Renal Vein Division During Open Surgery of Abdominal Aortic Disease: A Propensity Score-matched Case-control Study’

We read with interest the paper by Wang et al.1 The authors have found that left renal vein division (LRVD) may be a safe maneuver during abdominal aortic surgery as it did not increase the risk of early or a late mortality and morbidity.1 Standard open repair of juxtarenal abdominal aortic aneurysm (AAA) quite frequently requires a procedure with left renal vein. Approximately 15–20% of treated AAA in our clinic are juxtarenal. However, in some cases, a LRVD and reanastomosis should be performed. According to our