

Multidetector CT angiography in evaluation of prospective renal donors

Sir,

We read with interest the article by Ghonge *et al.*^[1] alluding to the importance of multidetector computed tomography (MDCT) imaging in the era of laparoscopic donor nephrectomy (LDN). We congratulate the authors for this excellent review. Studies in the past have shown that the sensitivity and specificity of MDCT angiography for the detection of accessory renal arteries, prehilal renal artery branching, and renal venous anomalies were 88% and 98%, 100% and 97%, and 100% and 97%, respectively. Computed tomography (CT) findings agreed with the surgical findings for accessory renal arteries, prehilal renal artery branching, and renal venous anomalies in 94%, 93%, and 98% of patients, respectively.^[2] Ghonge *et al.*, in addition to the above facts, add an important point of "clinical correlation" in this regard.

We have a few comments to add.

First, "*Primum non nocere*," that is, "first, do no harm" to the donor is the principle that appropriately describes the procedure of LDN. We feel that MDCT helps in providing a road map as far as vascular anatomy is considered. Apart from the information about the length, width, and the number of arteries and veins, the surgeon is immensely benefited if he/she knows the exact location of the artery and vein in relation to each other. For instance, if the surgeon is informed that the artery is posterior and cranial to the vein with two large lumbar vein branches

just close to it, he can plan his lower pole and hilar dissection accordingly and avoid potential challenges in the procedure. Such information can be gained if there is close communication between the radiologist and the operating urologist. This information can be easily gained on the CT workstation, with the axial and coronal images viewed simultaneously.

Second, the authors rightly describe the importance of prehilal branching of the vascular structures. This is important as newer methods such as the use of staplers and clips to secure the renal vasculature compromise a significant amount of vein and artery in comparison to the traditional way of tying two knots. The length of the stump is measured from the aortic ostium to the first segmental branch. This length should be clearly mentioned on the CT report as this has a bearing with regard to which side of the renal unit is to be harvested. A renal arterial stump length less than 6 mm would inevitably lead to a double artery in cases with early dividing arteries requiring bench surgery. So information on the length of the common stump would help in deciding the side and planning the surgical strategy.

Last but not the least, we completely agree with the authors that case-based interactive sessions between the radiologist and the urologist are of paramount importance. Toward this end, CT workstation analysis and/or reviewing the cuts on compact discs (CDs) help more than plain film analysis.

This helps to reduce the errors and also helps in making LDN a truly “zero error” procedure.

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