

Original Paper

**Kidney vascular preoperative evaluation using computerized tomographic angiography and formal angiography and comparison with intraoperative findings in living kidney donors**

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**Abstract**

**Background and Objective:** Computerized tomographic angiography (CTA) is a minimally invasive modality to image the vasculature without the morbidity of direct large vessel vasculature access and its major indications in urology are assessment of the renal vasculature in preparation for donor nephrectomy, identification of extravessel in evaluation of ureteropelvic junction obstruction and for diagnosis of renal artery stenosis. This study was done to evaluate vessels of kidney donors using CTA and formal angiography and comparison with intraoperative findings.

**Materials and Methods:** In this descriptive study, kidney vessels of 70 and 30 living kidney donor were assessed with computerized tomographic angiography and formal angiography respectively. The pattern of vessels of kidney during operation were examined. Two observers assessed the findings of preoperative CTA and formal angiography with intra operation observations.

**Results:** In CTA group there were two patients each with two main renal veins which were observed during operation was not recorded on computerized tomographic angiography. In formal angiography group there was one patient with unrevealed two main renal veins prior to surgery. In both groups, the accuracy of anatomical diagnosis of the main kidney artery were 100%.

**Conclusion:** This study showed that kidney vascular assessment by either the computed tomography angiography or formal angiography have similar clinical diagnostic accuracy.

**Keywords:** Computed tomography angiography, Angiography formal, Living kidney donor

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