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Educational Abstract

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Renal CT Angiography Evaluation For Kidney Transplant Donor In Dr.Kariadi General Hospital Semarang

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Learning Objectives

- To define information that is needed in Renal CT angiography (CTA) for kidney transplant donor.
- To review normal anatomy and its variant in renal arteries.

Background

Incidence rate of end stage renal disease (ESRD) increased in the past few years and became one of major health problems in Indonesia. Kidney transplantation has been increased as a therapy of choice for ESRD. Nowadays CTA has been used to evaluate renal vascularization of the donor.

Findings and Procedure

Twenty two potential kidney transplantation donors underwent Renal CTA with 90 ml IV bolus injection of water soluble iodinated contrast between January until December 2018 in Dr. Kariadi General Hospital of Semarang. Both of right and left renal artery and vein were evaluate based on its number, size, distance between renal hilus with proximal branching and presence of stenosis with MIP.

Details

Sixteen donors has one renal artery and vein on its respective site with mean diameter of renal artery is 5.3 mm and 10.4 mm for renal vein. In six patients we found multiple renal arteries with diameter 1,3-4,2 mm. Three patients have two renal vein with range diameter 3,19-13,2 mm. Distance between renal hilus and the proximal branching of artery ranging between 0,76-4,52 cm, which is important to determine the cutting point. Vascular without calcification, stenosis, nor thrombus is preferred.

Conclusion

Renal CTA can provide useful information of renal vascularization that are used for transplantation procedure planning.