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Scientific Abstract

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Relevant renal vascular anatomical variants -a surgeon want to know before partial or total laparoscopic/robotic Nephrectomies And The Accuracy of MDCT In Evaluating Them

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Introduction

Partial or total nephrectomies are indicated in different laparoscopic or robotic renal surgeries. Accurate preoperative road map of the vascular anatomy is important to avoid surgical complications. CT angiography can reliably and accurately depict the renal arteries and veins and the accuracy approaches that of conventional angiography in the assessment of most vascular abnormalities.

Objectives

- To study the variations in the number and branching pattern of the renal arteries.
- to study the the number and variations of the renal veins.
- To know the prevalence of each variation.

MATERIAL AND METHODS

This study included data from 100 randomly selected patients who underwent CT angiography of abdomen during a period of 11 months. All scans are done using 128 slice MDCT. Collected renal angiographic images of all patients were analyzed for the variations in renal vasculature.

Results and conclusion

Amongst the 100 patients, 66 patients showed at least one type of vascular variation. 51 patients had presence of arterial variation including right accessory renal artery, left accessory renal artery, right prehilum branching and left prehilum branching.

Total renal vein variations including right and left accessory veins, right and left late venous confluence, retro aortic renal vein and circumaortic renal vein was 25. Our study shows accuracy of MDCT in delineating the renal vasculature.