

ROLE OF COMPUTED TOMOGRAPHY GUIDED PERCUTANEOUS BIOPSY IN ASSESSMENT OF RENAL TUMORS

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INTRODUCTION

Biopsy plays an important role in the care of patients with a renal mass. Use of percutaneous biopsy to identify which masses are benign, and in some patients which masses are more or less aggressive. CT guided biopsy has the advantage of better resolution and tissue contrast, Is better able to localize the lesion and the needle tip and identify the surrounding critical structures. With recent improvements in image-guided equipment and technique, percutaneous renal mass biopsy can be performed safely and effectively, with a low complication rate and a high diagnostic yield.

AIMS

To evaluate the role of CT-guided percutaneous biopsy in diagnoses of different renal tumors either benign or malignant (primary or secondary) masses.

PATIENTS AND METHODS

Twenty patients were included in this study, These patients were presented with renal tumor of indeterminate diagnoses according to the imaging modalities (US, CT or MRI), CT-guided percutaneous biopsy was performed to evaluate the nature of this renal tumor after pre and post contrast CT examination.

Biopsy yield, complications and impact of patient`s management were analyzed.

RESULTS

The diagnostic capability of CT-guided percutaneous biopsy was (90%), non representative biopsy was demonstrated in 2 patients (10%) who underwent 2nd trial of biopsy with incidence of minor complications (5%).

CONCLUSION

The CT guided percutaneous biopsy can help in accurate and specific diagnosis of renal tumors with subsequent impact on their clinical management.

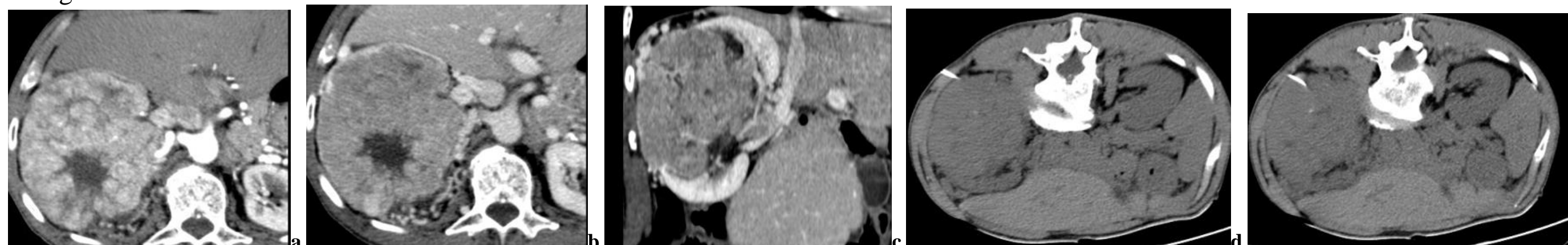


Figure 1: 76-year-old male patient, presented by right loin pain and hematuria. **a,b,c:** Axial and coronal CT images after iv contrast,, show right renal middle zone enhanced soft tissue mass with central scar. **d,e:** CT guided percutaneous biopsy in prone position, the histopathological diagnosis was oncocytoma

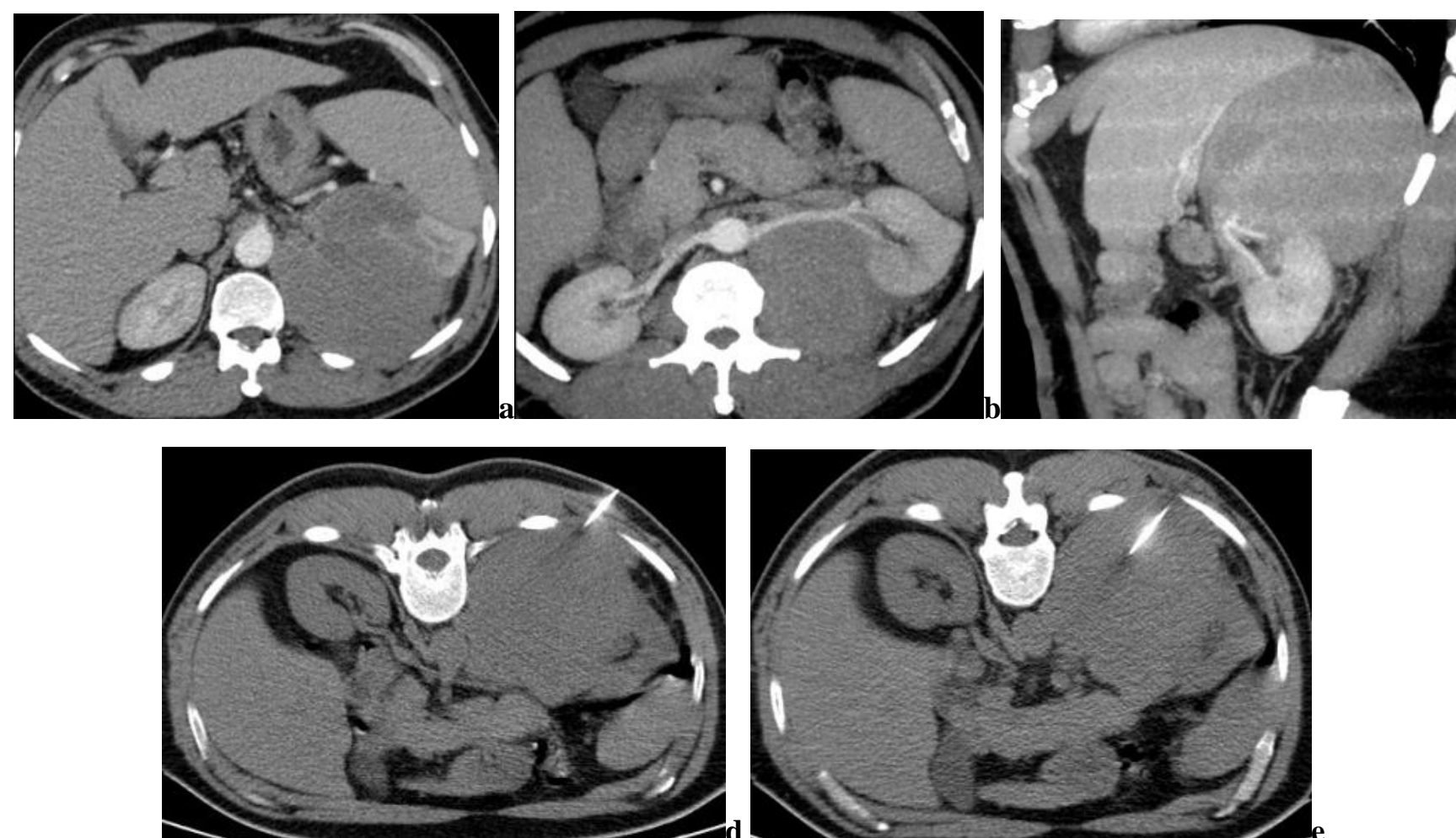


Figure 2: 49-year-old male patient, presented by left loin pain. **a,b,c:** Axial and coronal CT images after iv contrast,, shows left lumbar enhancing soft tissue mass infiltrating upper pole of left kidney with enlarged peri lesional LNS. **d,e:** CT guided percutaneous biopsy in prone position, the histopathological diagnosis was Non Hodgkin Lymphoma (NHL), diffuse large B cell type.