

## Image in Medicine

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### Quiz 1

**A 48-year-old male presented with increasing swelling in lateral aspect of neck since 10 months.**

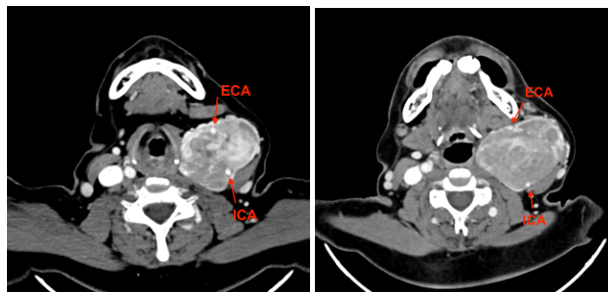
#### Questions :

- (1) What is the diagnosis ?
- (2) What are paragangliomas ?
- (3) What are common differential diagnosis ?

#### Answers :

(1) Well defined, intensely and homogeneously enhancing soft tissue density lesion is seen within the carotid space at carotid bifurcation causing splaying of the internal and external carotid artery – is highly suggestive of carotid body tumour / chemodectoma / carotid body paraganglioma. The characteristic splaying of ICA and ECA is known as lyre sign.

(2) Paragangliomas, the tumors of the paraganglia (extra-adrenal neuroendocrine system), can occur at any site along the specific locations of paraganglia tissue within the body. In the head and neck, the four most common sites are the carotid body at the Common Carotid Artery (CCA) bifurcation, the jugular foramen, along the vagus nerve, and within the middle ear.



(3) The common differentials include nerve sheath tumors, nodal metastasis, glomus vagale tumor and carotid bulb ectasia. Nerve sheath tumors displace the carotid arteries anteromedially and the IJV posteriorly. Nodal metastases infiltrate more into the surrounding soft tissues. Glomus vagale are located more rostrally. Carotid bulb ectasia has well defined continuation with wall of carotid artery.



### Quiz 2

**A 43-year-old female presented with bilateral flank pain, weight loss and hematuria.**

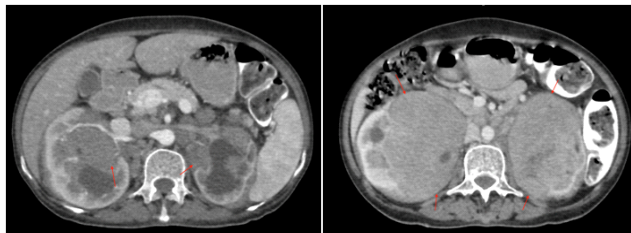
#### Questions :

- (1) What is the diagnosis?
- (2) What are extra-nodal lymphomas ?
- (3) What are the common differentials ?

#### Answers :

(1) Multiple poorly enhancing (in relation to renal parenchyma) retroperitoneal soft tissue density lesions directly invading the kidneys, causing bilateral renal enlargement, and associated with peri-renal soft-tissue masses. These findings are in favour of **renal lymphoma**, which was further confirmed on biopsy. Renal involvement in lymphoma is common in the presence of widespread nodal or extranodal lymphoma, known as secondary renal lymphoma. Rarely, lymphoma may involve the kidneys alone, this presentation is termed primary renal lymphoma.

(2) Extranodal involvement can be seen with lymphoma in approximately 25-40% of cases and almost any organ can be involved. Extra-nodal lymphoma commonly involve the genitourinary system, with the



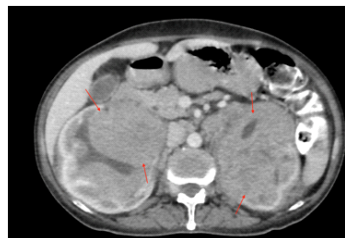
kidneys being the most commonly involved organs. Contrast CT scan remains the modality of choice for the detection, diagnosis, staging, and monitoring of renal lymphoma.

(3) The common differentials are :

(A) *Renal cell carcinoma* – are usually unilateral, appear heterogeneous and show intense enhancement (as compared to renal parenchyma) and also show vascular invasion.

(B) *Acute pyelonephritis* – focal wedge shaped areas which appear swollen and show reduced enhancement compared with the normal renal parenchyma. During excretory phase, a straited nephrogram may be seen.

(C) *Xanthogranulomatous pyelonephritis* : There is loss of normal renal outline and enlargement of kidney with contracted renal pelvis. On contrast scan, the calyces are dilated giving a multiloculated appearance.



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