Malignant Peripheral Nerve Sheath Tumor of Kidney

A 40-year-old man presented with complaints of left-sided lower back discomfort for 2 to 3 months. There was no other significant history. Physical examination was unremarkable except for a palpable mass in the left flank. Ultrasonography showed a hypoechoic mass. Biphasic contrast-enhanced computerized tomogram revealed a large, heterogeneous, infiltrating, necrotic mass lesion arising from the left kidney with blood supply from the left renal artery. Fine needle aspiration cytology showed sheaths, bundles and whorls of cells with indistinct cell margin, moderate amount of eosinophilic cytoplasm, elongated wavy nuclei and moderate anisocytosis suggestive of malignant peripheral nerve sheath tumor (× 100, hematoxylin-eosin). He underwent a radical tumor excision.

Malignant peripheral nerve sheath tumor is derived from Schwann cells. The occurrence of its isolated form in the kidney capsule is extremely rare. Only 5 cases of malignant peripheral nerve sheath tumor of kidney are reported till date.1,2 Symptoms are insidious and nonspecific. Computed tomography can help us differentiating this unique histological character from common renal tumors with features of larger size, infiltrative nature, necrotic areas, and lack of extension into the renal vein. The differential diagnosis in our case included aggressive renal cell carcinoma, small round cell tumor, and sarcoma. The implication lies in the difference in treatment strategies depending on histology.

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