CASE 087

CŌRE DIAGNOSTICS™

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CASE HISTORY:

A 32 years old female presented with history of abdominal pain for 3 months. CT abdomen revealed a huge abdomino-pelvic mass measuring 20.0 x 15.0 x 11.0 cm arising from the lower pole of left kidney. Bilateral lung and liver nodules were also noted (FNAC proven metastases).

PATHOLOGICAL FEATURES:

Microscopic examination revealed a relatively circumscribed cellular blue looking tumor comprising of tightly packed tubules. The tumor cells were moderately pleomorphic with round to oval irregular nucleus, fine chromatin, inconspicuous nucleolus and scant cytoplasm. Brisk mitosis (10/10HPF) and karyorrhectic debris were also noted. Based on the morphology and clinical history, the differential diagnosis considered were Papillary RCC, Metanephric like *ALK*-rearranged RCC, Metanephric adenoma, epithelial predominant adult Wilms' tumor, metastases and synovial sarcoma.

An extended panel of immunohistochemistry was performed. The tumor cells were positive for WT1, PAX8, CD56, CD57, BRAF and negative for KRT7, KRT20, AMACR, ALK, ER, synaptophysin, desmin, myoD1, SS18. Ki67 proliferation index was 40%.

NGS mutational analysis: *BRAF V600E* mutated

PATHOLOGIC DIAGNOSIS:

Adult Wilms' Tumor (epithelial predominant), possibly arising from a metanephric adenoma.