Mucinous tubular and spindle cell carcinoma- Case report and review of literature

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Mucinous tubular and spindle cell carcinoma (MTSCC) is a rare distinct subtype of RCC thought to have proximal tubular differentiation. It accounts for <1% of all renal neoplasms. It is a low grade malignancy incorporated in WHO classification of renal neoplasms in 2004. Grossly it ranges in size from 2 to 10 cm, is well circumscribed with off-white to yellow cut surface. It is composed of different components including tubules, extracellular mucinous material and spindle cell areas. Few cases have been reported so far with female predominance. We present a case of 50 years old female patient, presented with hematuria and flank pain. Radiology showed mass in left kidney. Nephrectomy was performed. We received left nephrectomy specimen, which revealed a multinodular, well circumscribed mass (9.5 cm) at upper pole of left kidney. Histologically, tumor showed multinodular arrangement. Solid compressed cords and papillary structures lined by cuboidal tumor cells with bland nuclear features were evident. Few psammoma bodies were also seen. Surrounding stroma was focally myxoid. Immunohistochemically (IHC), tumor was positive for vimentin, CK-7, AMACR and CD-15. Alcian blue highlighted the myxoid stroma. Diagnosis of MTSCC was made. At cytogenetic level loss of chromosomes 1, 4, 6, 8, 9, 13, 14, 15 and 22 while gain of chromosomes 3, 7, 16 and 17 is noted. It was previously thought to be a variant of papillary renal cell carcinoma (RCC). It shares IHC and morphological features with papillary RCC however, typical mutation found in papillary RCC (trisomy 7/17) is not found in MTSCC. It is important to differentiate this entity from papillary RCC with sarcomatoid features and mesenchymal tumor because MTSCC has favorable prognosis.

Biography

Zafar G has done his MBBS from University of Health Sciences in 2013. Currently, he is perusing his post graduate residency from Chughtai Lab in Histopathology.

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