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Case study

Mucinous tubular and spindle cell carcinoma of kidney without sarcomatoid change showing metastases to liver and retroperitoneal lymph node

Nafisa A. Ursani MBBS, FRCPC [a,*], A. Rocke Robertson MD, FRCPC [b], Steven M. Schieman MD, FRCSC [c], Terry Bainbridge MD, FRCPC [d], John R. Srigley MD, FRCPC [a,e]

[a]*Department of Pathology and Molecular Medicine, Hamilton Health Sciences, Hamilton, Ontario, Canada L8N 3Z5*
[b]*Anatomic Pathology, East Kootney Regional Hospital Laboratories, Cranbrook, British Columbia, Canada V1C 3H9*
[c]*Urology, Interior Health Authority, Cranbrook, British Columbia, Canada V1C 3H9*
[d]*Pathology and Laboratory Medicine, Cancer Center for the Southern Interior, British Columbia Cancer Agency, University of British Columbia, Vancouver, British Columbia, Canada V5Z 4E6*
[e]*Department of Laboratory Medicine, Credit Valley Hospital, Mississauga, Ontario, Canada L5M 2N1*

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Summary Mucinous tubular and spindle cell carcinoma (MTSCC) is an uncommon, newly recognized tumor that in its classic histological form shows tightly packed, elongated tubules with transition into spindle cell areas and pale mucinous stroma. The current data suggest that the great majority of MTSCCs have a favorable prognosis; however, the follow-up data are limited and the full biologic potential of this tumor remains to be established. There are a few examples of MTSCCs metastatic to lymph nodes and rare cases with sarcomatoid differentiation associated with distant metastases. We report on a case of MTSCC of kidney with concurrent nodal and liver metastases. The metastatic nodules were well circumscribed and showed morphological and immunophenotypic features similar to those of the primary tumor. Extensive sampling revealed no evidence of sarcomatoid morphology. To our knowledge, this is the first case of MTSCC without sarcomatoid differentiation showing parenchymal metastasis.

1. Introduction

Mucinous tubular and spindle cell carcinoma (MTSCC) is a rare, recently described subtype of renal cell carcinoma (RCC). It has been accepted as a distinct entity in the 2004 World Health Organization classification of kidney tumors [1]. Because of its rarity, the clinical behavior and metastatic potential of MTSCC have not been fully established. MTSCC is described in the literature as a low-grade, relatively indolent tumor with rarely reported instances of nodal metastasis [2-5]. More recently, case reports have also described aggressive sarcomatoid differentiation in MTSCC [6-9]. Three of these reports mentioned distant metastasis

* Corresponding author.
E-mail addresses: nafisa.ursani@medportal.ca (N. A. Ursani), jsrigley@cvh.on.ca (J. R. Srigley).

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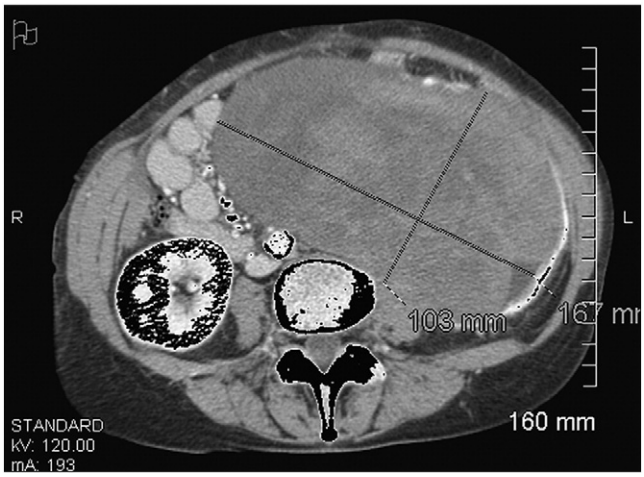

Fig. 1 CT scan of abdomen showing large mass arising from the left kidney.

with a fatal outcome [6,7,9]. We report on a case of MTSCC showing typically bland histological features with concurrent liver and nodal metastases. Our report shows that MTSCC, even without sarcomatoid change, can lead to distant metastasis and, as a consequence, advice regarding prognosis should be rendered cautiously.

2. Case report

2.1. Clinical presentation

A 64-year-old woman presented with abdominal discomfort and a palpable abdominal mass. There were no symptoms of hematuria, voiding dysfunction, flank pain, or weight loss. The patient was a smoker with a remote history of cervical cancer for which a total abdominal hysterectomy was performed in 1986. A computed tomography (CT) scan of the abdomen showed a large retroperitoneal mass arising from the upper pole of the left kidney (Fig. 1) along with retroperitoneal lymphadenopathy. The liver displayed multiple small nodules suggestive of metastatic disease. Results of a CT-guided liver biopsy were reported as "negative for malignancy." The patient underwent a left radical nephrectomy and biopsies of a retroperitoneal lymph node and a liver nodule. There were no complications. The patient is

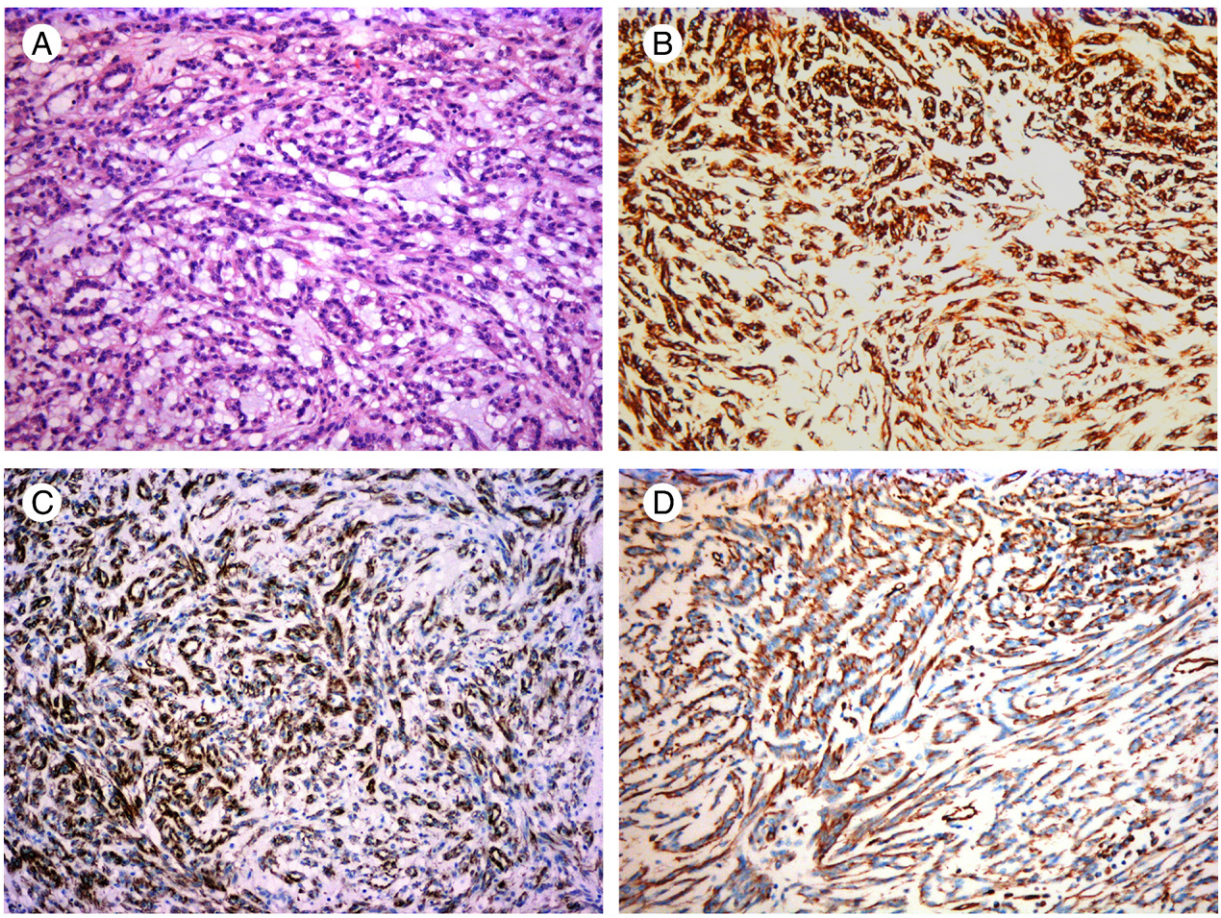

Fig. 2 (A) Histological appearance of primary renal MTSCC, showing bland small tubules, spindle cells, and mucinous stroma. (B) Strong and diffuse CK7 positivity in the kidney tumor. (C and D) Immunopositivity for (C) P504S and (D) vimentin in the primary tumor.