BILINGUAL PUBLISHING CO.
Pioneer of Global Academics Since 1984

Journal of Oncology Research
https://ojs.bilpublishing.com/index.php/jor

CASE REPORT

Rental Mucinous Tubular and Spindle Cell Carcinoma: Case Report

Mosab Abdalla Ali Alzubier[1*] Abd Elmouniem Ali Elgasim[2] Sami Mahjoub Taha[3]

1.Assistant Professor of Urology, MBBS, MRCS, EF urology, Gadarif University, Faculty of Medicine, Sudan. Temporally Assistant Professor of Urology, Prince Sattam ibn Abdulaziz University, Faculty of Medicine, Consultant Urologist Prince Sattam University Hospital. Al kharj, KSA
2.Consultant Urologist, Ibn sina Hospital, Sudan
3.Professor of Urology, University of Gezira, Faculty of Medicine, Sudan

ARTICLE INFO

Article history
Received: 24 January 2021
Accepted: 24 February 2021
Published Online: 31 March 2021

Keywords:
Mucinous tubular and spindle cell carcinoma
Renal tumour
Sudan

ABSTRACT

Mucinous tubular and spindle cell carcinoma (MTSCC) of the kidney is an uncommon recently recognized renal cell carcinoma. We reported A 60 year's old man who presented with right flank pain, abdominal swelling and one attack of hematuria. The intraoperative finding was a huge cystic swelling arising from the right kidney occupying almost all the abdominal cavity displacing the bowel to the left side of the abdomen. There was no ascites or evidences of metastasis. Right radical nephrectomy was done. Then the diagnosis of renal MTSCC was established. General condition of the patient was improved and one year prognosis was satisfactory. To our knowledge this is the first reported case of MTSCC in Sudan, and the outcome of treatment was satisfactory.

1. Introduction

MTSCC of the kidney is a rare subtype of renal cell carcinoma (RCC) [1]. It has a female predominance and the mean age of patients is 53 years [2]. The majority of MTSCCs are of low malignant potential, so that it is rarely recur or spread distally [3-6], but exceptionally cases of high grade and/or sarcomatoid features may present with regional nodal or distant metastasis [4-6]. Histologically, this tumour is characterized by a mixture of tubular and spindle cells separated by variable amounts of mucinous stroma. The MTSC has round nuclei and evenly dispersed chromatin. These low-grade nuclear features are the same in both the tubular and the spindle cell elements [6, 7]. Mucin-poor variant of MTSC has little or no extracellular mucin in the stroma [8].

2. Case Report

A 60-year-old man who presented with right flank pain, abdominal swelling and one attack of hematuria. Abdominal CT revealed a grossly hydronephrotic right kidney with septations and peripheral calcification (Figure 1). Radical nephrectomy was done. The intraoperative finding was a huge cystic swelling arising from the right kidney occupying almost all the abdominal cavity (Figure 2), displacing the bowel to the left side of the abdomen. The renal pedicle was approached by mobilization of the ascending colon medially. No ascites or evidences of

**Corresponding Author:*
Mosab Abdalla Ali Alzubier,
Assistant Professor of Urology, MBBS, MRCS, EF urology, Gadarif University, Faculty of Medicine, Sudan. Temporally Assistant Professor of Urology, Prince Sattam ibn Abdulaziz University, Faculty of Medicine, Consultant Urologist Prince Sattam University Hospital. Al kharj, KSA;
E-mail: mosab19103@hotmail.com

DOI: https://doi.org/10.30564/jor.v3i1.2830

other structures involvement, then radical nephrectomy was done without significant blood loss or intraoperative complication. Postoperative course was unremarkable. Histopathology showed cystic mass; sections showed mucin with columns of poorly formed tubules and clumps of tumour cells; in other areas the tumour was sarcomatous with spindle cells. The diagnosis of renal MTSCC was made. The patient received adjuvant chemotherapy. General condition of the patient was improved on serial follow up, with no evidence of local recurrence or distal metastasis on CT chest and abdomen done six months and one year postoperatively.

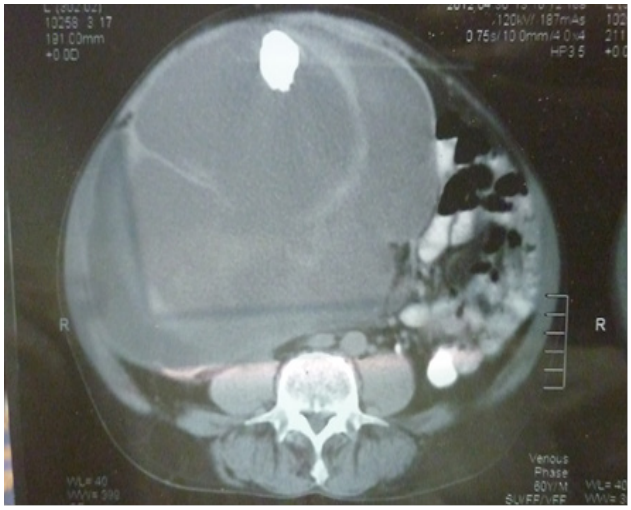

Figure 1. Abdominal CT scan showing grossly hydronephrotic right kidney.

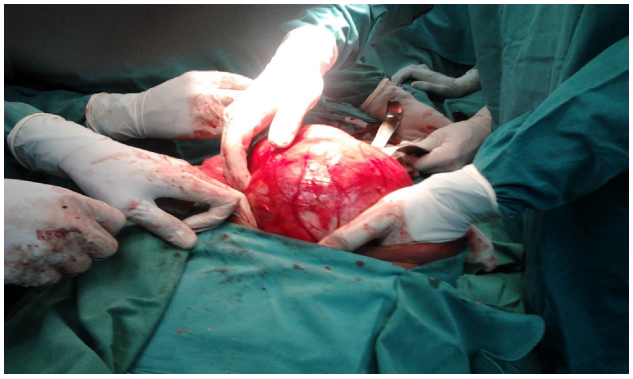

Figure 2. Intraoperative appearance of the tumour.

3. Discussion

MTSCC of the kidney is an uncommon, recently described variant of renal cancers as the first case was reported in 1998, since that time many cases were reported, in 2004 WHO tumour classification recognized it as a distinct entity of renal tumours [10]. The patient presented in this report was a male, although MTSCC is predominant in females. It is described in the literature as a low grade relatively indolent tumour that carry a good prognosis as it is commonly graded as a good differentiation tumour [2, 10, 11]. However, some cases with sarcomatoid features may have more aggressive progression and poor outcome, so adequate sampling of the tumour is required in order not to miss this finding because it may substantially affect the clinical course of the disease [6,5]. MTSCC is mainly diagnosed on histological and morphological grounds, and immunohistochemical studies show mostly specifically positive for RCC marker antigen, vimentin, CK7, and AMACR. [6,5,12].

The clinical presentation and clinical course of our patient was similar to what was mentioned in the literature and reported by many authors [1]. The tumour was generally confined (T1 or T2) in more than 80% of cases [3,13]. The proliferation rate was low, suggesting a low proliferation activity, a finding that may in part explain the low malignancy of this tumour type. The coexistence with other renal abnormalities as a simple renal cyst, a synchronous RCC, a papillary adenoma [13] or angiomyolipoma was reported [8]. Also associated histological findings that may affect the clinical course of the disease were reported, as Jung et al report a case of renal MTSCC with focal neuroendocrine differentiation [9], Simon et al. [6] report a case of MTSCC with extensive sarcomatoid differentiation, multiple metastases, and a rapidly fatal clinical course. Association with tuberculosis was also reported [14].

To our knowledge, this is the first reported case of MTSC in our center and Sudan as well. Management received was satisfactory, the outcome of treatment was satisfactory too and the experience we got from its management was advocated.

References

[1] Srigley JR: Mucinous tubular and spindle cell carcinoma. WHO classification of tumours, in Eble JN, Sauter G, Epstein JI, Sesterhenn IA (eds): Tumours of the Genitor-Urinary and Male Genital Organs. Lyon, France, International Agency for Research on Cancer Press, 2004

[2] Ferlicot S, Allory Y, Compe´ rat E, et al: Mucinous tubular and spindle cell carcinoma: A report of 15 cases and a review of the literature. Virchows Arch 2005; 447: 978-983.

[3] Rakozy C, Schmahl GE, Bogner S, et al: Low-grade tubular-mucinous renal neoplasms: Morphologic, immunohistochemical, and genetic features. Mod Pathol 2002; 15: 1162-1171,

[4] Hes O, Hora M, Perez-Montiel DM, et al: Spindle and cuboidal renal cell carcinoma, a tumour having

 DOI: https://doi.org/10.30564/jor.v3i1.2830

frequent association with nephrolithiasis: Report of 11 cases including a case with hybrid conventional renal cell carcinoma/spindle and cuboidal renal cell carcinoma components. Histopathology 2002; 41: 549-555

[5] Dhillon J, Amin MB, Selbs E, et al: Mucinous tubular and spindle cell carcinoma of the kidney with sarcomatoid change. Am J Surg Pathol 2009; 33: 44-49.

[6] Simon RA, di Sant'agnese PA, Palapattu GS, et al: Mucinous tubular and spindle cell carcinoma of the kidney with sarcomatoid differentiation. Int J Clin Exp Pathol 2008; 1: 180-184,.

[7] Eble JN, Sauter G, Epstein JI, Sesterhenn IA. World Health Organisation Classification. Pathology and Genetics. Tumours of the urinary system and male genital organs. Lyon : IARC Press, 2004.

[8] Fine SW, Argani P, DeMarzo AM, Delahunt B, Sebo TJ, Reuter VE and Epstein JI. Expanding the histological spectrum of mucinous tubular and spindle cell carcinoma of the kidney. Am J Surg Pathol 2006; 30: 1554-1560.

[9] Jung SJ, Yoon HK, Chung JI, Ayala AG and Ro JY. Mucinous tubular and spindle cell carcinoma of the kidney with neuroendocrine differentiation: report of two cases. Am J Clin Pathol 2006; 125: 99-104.

[10] He Q, Ohaki Y, Mori O, Asano G, Tuboi N. A case report of renal cell tumor in a 45-year-old female mimicking lower portion nephrogenesis.Pathol Int 1998; 48: 416-20.

[11] Kato M, Soga N, Arima K, Sugimura Y. A case of renal mucinous tubular and spindle cell carcinoma. Int J Urol 2009; 16: 699-701.

[12] Shen SS, Ro JY, Tamboli P, Truong LD, Zhai Q, Jung SJ, et al. Mucinous tubular and spindle cell carcinoma of kidney is probably a variant of papillary renal cell carcinoma with spindle cell features. Ann Diagn Pathol 2007; 11: 13-21.

[13] Paner GP, Srigley JR, Radhakrishnan A, Cohen C, Skinnider BF, Tickoo SK, Young AN, Amin MB, Immunohistochemical analysis of mucinous tubular and spindle cell carcinoma and papillary renal cell carcinoma of the kidney: significant immunophenotypic overlap warrants diagnostic caution, Am J Surg Pathol, 2006; 30: 13-19.

[14] Saloua Kichen etal. Mucinous tubular and spindle cell carcinoma of the kidney associated with tuberculosis.Saudi J Kidney Dis Transpl 2011; 22: 335-338

DOI: https://doi.org/10.30564/jor.v3i1.2830