Tremendous non-progressed chromophobe renal cell carcinoma for eight years performed by laparoscope

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Abstract

The prognostic role of chromophobe renal cell carcinoma (ChRCC) is still controversial. Here, we report on a patient who lived with tremendous non-progressed renal malignant tumour for eight years. The 32-year-old patient presented to our hospital with a huge renal tumour. Computed tomography (CT) scan showed a tumour 12 cm in diameter at the upper pole of the right kidney. Trans-abdominal laparoscopic right radical nephrectomy was performed. Histopathological examination confirmed this tumour to be a ChRCC. The phenomenon of long-term non-progressed renal malignant tumour will help us further understand the characteristics of ChRCC.

Introduction

Renal cell carcinoma is the most common tumour of the kidney, among which, chromophobe renal cell carcinoma (ChRCC) is a rare variant and accounts for about 5% of all cases.[1] The prognostic role of ChRCC is still controversial.[2] Generally, the prognosis is better; however, cases of metastasis also occur. Here, we present a rare case of a patient who lived with tremendous non-progressed renal malignant tumour for eight years.

Case report

A 32-year-old male patient presented with no symptoms associated with renal tumour and no remarkable past medical history. He did not have obvious loss of weight and appetite. Computed tomography (CT) scan is shown in Fig. 1. We performed trans-abdominal laparoscopic right radical nephrectomy. The surgery was successful and no complications occurred. Operation time was 95 minutes. Macroscopic cut surface of the resected specimen is shown in Fig. 2. Length of incision was about 7 cm, as shown in Fig. 3. Histopathological examination confirmed this tumour to be a ChRCC (Fig. 4).

Discussion

ChRCC was first described by Thoenes et al in 1985.[3] Przybycin et al[4] studied 203 consecutive primary ChRCC and found that ChRCC seemed to have better clinical outcomes than those reported for clear-cell and papillary renal cell carcinoma. In 2012, Volpe et al[2] reported the largest series of ChRCC. They confirmed that only 1.3% of patients presented with distant metastases at diagnosis, and the rates of five- and 10-year cancer-specific survival (CSS) were 93% and 88.9%, respectively. They concluded that ChRCC has a good prognosis and a low tendency to progress and metastasize. However, distant metastasis was not uncommon. Zhao et al[5] presented a case of ChRCC with sarcomotoid change involving the colon. Davion et al[6] reported detection of an aggressive form of ChRCC in pleural fluid cytology with histopathological confirmation on subsequent pleural biopsy. Tanaka et al[7] reported a case of ChRCC with osseous metaplasia and sarcomatoid transformation.

In the present study, we showed a renal malignant tumour that had not progressed for eight years. To our knowledge, it represents the first case of long-term non-progressed renal malignant tumour. This case will help us further understand the characteristics of ChRCC.

Conclusion

Slow progress or even non-progress may be a feature of ChRCC. Such a phenomenon will benefit us to further understand the characteristics of ChRCC.

Competing interests: The authors report no competing personal or financial interests.

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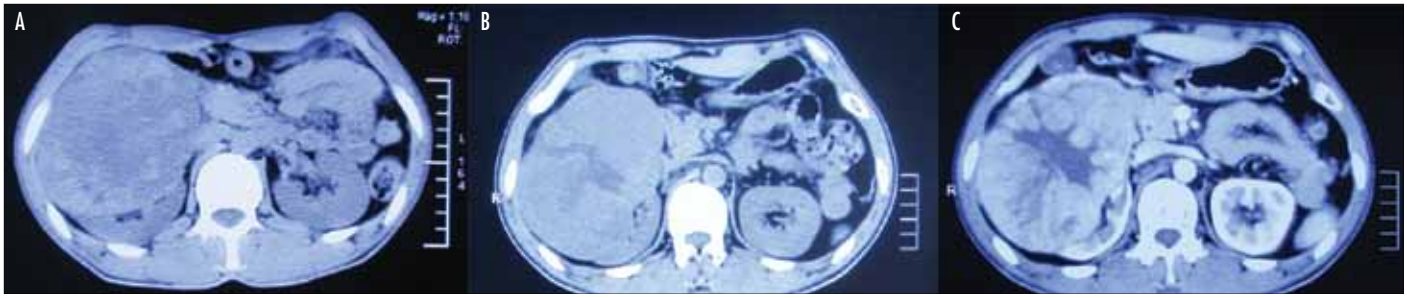

Fig. 1. (A) Non-enhanced abdominal computed tomography (CT) scanning showed a giant heterogeneous tumour measuring 12.5 × 11.5 × 8.0 cm at the upper pole of the right kidney (September 10, 2005); ***(B)*** compared with Fig. 1A, non-enlarged renal tumour presented with irregular low density in the centre (non-enhanced abdominal CT; October 8, 2013); ***(C)*** enhanced abdominal CT scanning showed stellate-shaped scar in the centre of the tumour (October 8, 2013); CT did not reveal either tumour vein thrombus or hilar nodal metastasis.

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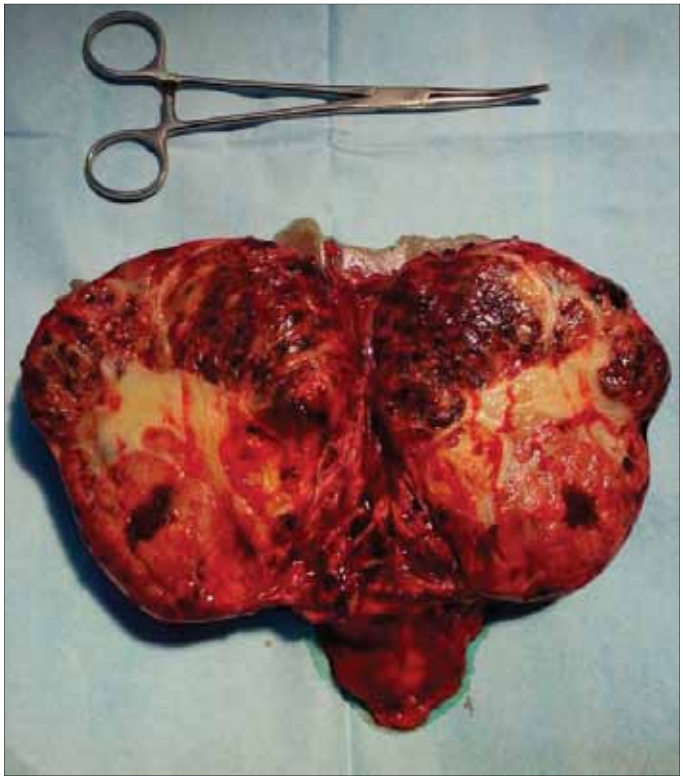

Fig. 2. Irregular, gray-white calcified areas were identified in the midst of the tumour.

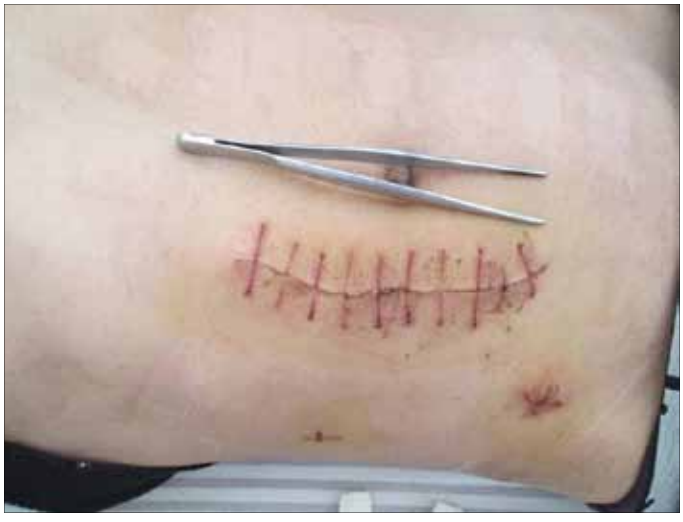

Fig. 3. Length of incision was about 7 cm.

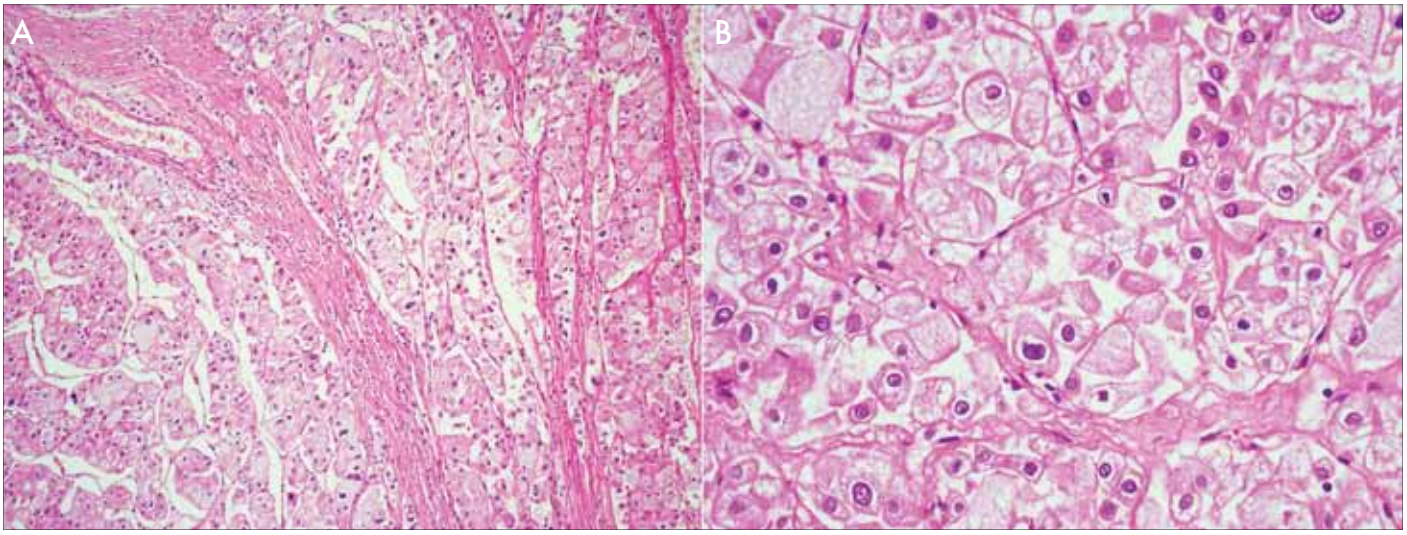

Fig. 4. (A) Entitative structure was shown in the tumour tissue, which presented thick-walled blood vessels and fibrous septa (H&E staining 10×); ***(B)*** tumour cells show weakly eosinophilic and cloudy cytoplasm with prominent cell membranes and perinuclear halos, at high magnification (H&E staining 40×).