

IN BRIEF

 FOCUS ON KIDNEY CANCER

Most patients with clear cell renal cell carcinoma (RCC) harbor inactivating mutations of the VHL gene. A UK Cancer Genome Project team has refined our understanding of the heterogeneous genetics of this malignancy by identifying inactivating mutations in genes that encode the histone-modification enzymes SETD2 and JARID1C (KDM5C). More than 3,500 protein-coding genes from 101 cases of clear cell RCC were sequenced. The findings indicate a key role for aberrant chromatin modification in human cancer.

Original article Dalglish, G. L. *et al.* Systematic sequencing of renal carcinoma reveals inactivation of histone modifying genes. *Nature* **463**, 360–363 (2010)

The published evidence supporting laparoscopic surgery for localized renal cancer is of poor quality. This is the conclusion of a systematic review conducted by the Cochrane Collaboration. A comprehensive literature search failed to detect any randomized comparisons of open radical nephrectomy versus laparoscopic approaches, radiofrequency or cryoablation. Claims regarding advantages of laparoscopic surgery, such as hastened patient recovery and less blood loss, have been made on the basis of small, retrospective studies and case series.

Original article Nabi, G., Cleves, A. & Shelley, M. Surgical management of localised renal cell carcinoma. *Cochrane Database Syst. Rev.* **3**, CD006579 (2010)

RCC patients with bilateral tumors, tumors >4 cm, or positive surgical margins should be monitored closely for ipsilateral recurrence after nephron-sparing surgery. These three independent predictive factors were identified during multivariate analysis of data from just over 800 nephron-sparing procedures. Hazard ratios for this relatively rare phenomenon (3.2% incidence in this retrospective study) were 6.3, 4.6 and 11.5 for bilaterality, size >4 cm, and positive margins, respectively.

Original article Bernhard, J. C. *et al.* Predictive factors for ipsilateral recurrence after nephron-sparing surgery in renal cell carcinoma. *Eur. Urol.* doi:10.1016/j.eururo.2010.02.019

A Spanish, multicenter, phase II study has provided preliminary confirmation of the superiority of 'chemo-switch' regimens for metastatic RCC. 40 treatment-naive patients with clear cell histology received six cycles of gemcitabine (1,000 mg/m² on days 1 and 8), metronomic capecitabine (500 mg/m² twice per day for 14 days) plus sorafenib (400 mg twice per day for 21 days), followed by sorafenib monotherapy. Median progression-free survival (11.1 months) and response (partial response in 20 patients, stable disease in 17) rates were superior to those reported previously for gemcitabine plus capecitabine only, and for sorafenib monotherapy.

Original article Bellmunt, J. *et al.* Activity of a multitargeted chemo-switch regimen (sorafenib, gemcitabine, and metronomic capecitabine) in metastatic renal-cell carcinoma: a phase 2 study (SOGUG-02-06). *Lancet Oncol.* doi:10.1016/S1470-2045(09)70383-3