

 KIDNEY CANCER

Sunitinib versus everolimus for non-clear-cell renal cell carcinoma

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Sunitinib treatment is associated with improved progression-free survival compared with everolimus treatment in patients with metastatic non-clear-cell renal cell carcinoma, according to a new study, but outcomes vary according to genetic, histological, and prognostic factors.

In their multicentre, phase II, open-label, randomized study, Armstrong and co-workers randomly assigned 108 patients with metastatic non-clear-cell renal cell carcinoma to receive oral treatment with either the mTOR inhibitor everolimus ($n = 57$) or the VEGF tyrosine kinase inhibitor sunitinib ($n = 51$) until disease progression or unacceptable toxic effects. The primary end point was progression-free survival.

Patients were randomly assigned to treatment between 23 September

2010 and 28 October 2013. The database was closed on 8 December 2014, when 87 progression-free survival events had occurred; only two patients (one in each group) were still receiving the study drug at this time.

The researchers found that patients treated with sunitinib had significantly longer progression-free survival than those treated with everolimus (8.3 months versus 5.6 months; hazard ratio 1.41). Treatment effect did, however, vary according to histological subtype and prognostic risk group. “In exploratory, non-powered analyses, sunitinib was more effective in prolonging progression-free survival in patients rated as being at good or intermediate risk according to

Center criteria and in patients with papillary or unclassified histologies, whereas everolimus was more effective in prolonging progression-free survival in patients at poor risk or with chromophobe histology”, note the authors. “...These results offer the most definitive evidence to date supporting not only the heterogeneity of this disease and outcomes, but also that responses and outcomes to either an mTOR inhibitor-based or VEGF tyrosine kinase inhibitor-based approach depend on specific groups.”

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ORIGINAL ARTICLE Armstrong, A. J. et al. Everolimus versus sunitinib for patients with metastatic non-clear renal cell carcinoma (ASPEN): a multicentre, open-label, randomised phase 2 trial. *Lancet Oncol.* [http://dx.doi.org/10.1016/S1470-2045\(15\)00515-X](http://dx.doi.org/10.1016/S1470-2045(15)00515-X) (2016)