

SEQUENTIAL SUNITINIB AND SORAFENIB IN METASTATIC RENAL CELL CARCINOMA

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Background: Sunitinib and sorafenib were multitarget tyrosine kinase inhibitors (TKIs) with antitumor activity in renal cell carcinoma (RCC). We conducted this retrospective study to evaluate the efficacy and tolerability of sequential sunitinib and sorafenib in metastatic RCC.

Methods: Tumor response by RECIST criteria and time to failure (TTF), which was defined as time from starting of first TKI to disease progression or early termination due to toxicity after first or second TKI, were evaluated. Patient characteristics, ECOG performance status (PS), and risk factors were assessed at starting of first TKI.

Results: Twenty-eight and 8 patients received sunitinib followed by sorafenib (SN group) and vice versa (NS group), respectively. According to MSKCC risk score, NS group had more patients with intermediate or poor risk (favorable:intermediate:poor risk, 2:26:0 in SN versus 4:3:1 in NS; $P=0.003$). Other clinical factors were not different between two groups. First TKI was terminated due to toxicities in 11% in SN group and 25% in NS group. Second TKI was early terminated due to toxicities in 14% in SN group and 50% in NS group at < 6 weeks before response evaluation. Response rates for first/second TKIs were 39%/11% in SN group and 13%/ 25% in NS group. Disease control rates for second TKIs were 54% and 50% in SN and NS groups, respectively. The median TTFs for first and second TKIs were not different between SN and NS groups with 31 and 24.3 weeks for first TKI ($P=0.610$), and 51 and 39.9 weeks for second TKI ($P=0.580$), respectively. In multivariate analysis, poor performance (PS of 2-3; $P<0.001$) and more metastases at baseline (3 or more; $P=0.026$) adversely affected TTF after second TKI. The median overall survival was 97.9 weeks in SN group and was not reached in NS group ($P=0.662$).

Conclusions: These results suggest that the lack of cross resistance between sunitinib and sorafenib in advanced RCC. Better tolerability of sunitinib followed by sorafenib warrants the further investigation.