METASTATIC SITES AS PREDICTORS OF OUTCOME IN RENAL CELL CARCINOMA (RCC) PATIENTS (PTS) TREATED WITH FIRST-LINE SUNITINIB (SU) OR SORAFENIB (SO)

P. Grassi1, E. Verzoni2, I. Testa2, L. Porcu3, R. Iacovelli1, E. Garanzini4, G. Bregni2, F.G.M. De Braud1, G. Procopio1

1Department of Medical Oncology, Fondazione IRCCS - Istituto Nazionale dei Tumori, Milan, ITALY
2Oncologia Medica, Fondazione IRCCS - Istituto Nazionale dei Tumori, Milan, ITALY
3Methodology for Biomedical Research, Mario Negri Institute, Milan, ITALY
4Medical Oncology, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, ITALY

Aim: The predictive role of metastatic sites in RCC pts treated with tyrosine kinase inhibitors (TKIs) is unclear. Aim of this study was to investigate whether first line SU or SO was associated to metastatic sites in terms of time to treatment failure (TTF) and overall survival (OS).

Methods: A retrospective cohort of consecutive metastatic RCC (mRCC) pts treated with first-line TKIs at Istituto Nazionale Tumori of Milan was analyzed. All pts received SO or SU. The product limit method was used to estimate survival functions and Cox regression to estimate hazard ratios (HRs) and to test statistical interaction between sub-groups identified by different metastatic sites (liver, lung, brain, bone, lymphnodes and others).

Results: 309 mRCC pts receiving first-line TKIs SU and SO between January 2005 and October 2012 were evaluated. Overall 206 pts (67%) received SO while 103 pts (33%) SU. Median TTF for SU and SO groups was 16 (95%CI 12.0-20.1) and 9 months (mo) respectively (95%CI 7.0-12.0). After a median follow-up of 56.1 mo (range: 1.0-93.2) median OS for SO group was 19.9 mo (95%CI 16.0-25.1) while it was not yet defined in the SU group. Noteworthy 142 pts (69%) treated with SO received SU at disease progression (PD) while 36 pts (35%) received SO at SU failure. A statistically significant interaction between first-line treatment and metastatic sites was found for the liver site (TTF: p = 0.034; OS: p = 0.004). SU was associated with a 18% higher risk of TTF in pts with liver mets as compared to SO [HR 1.18; 95%CI (0.63-2.22)] while pts without liver mets who received SU showed a 46% [HR 0.54; 95%CI (0.39-0.75)] decreased risk of TTF as compared to SO. SU was associated with a 39% higher risk of death as compared to SO [HR 1.93; 95% CI (0.68-2.87)] in pts with liver mets while pts without liver mets treated with SU showed a 62% decreased risk of death as compared to SO [HR 0.38; 95%CI (0.24-0.60; p = 0.004)]. The predictive role of liver mets was confirmed introducing the Motzer score (TTF p=0.084; OS p=0.009).

Conclusions: mRCC pts with liver mets treated with first-line SO showed a better outcome as compared to SU while pts without liver mets treated with first-line SU showed a better outcome as compared to SO.

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