What Influence has Sunitinib had on Metastatic Renal Cell Carcinoma (mRCC) Survival?

Paul A.J. Baillargeon, D.O., 1 John H. Grider, Sr, D.O.1,2, Jane C. Johnson, M.A.2, Anders Messersmith, OMSIV2

1 Northeast Regional Medical Center, Kirksville, MO
2 ATSU-Kirksville College of Osteopathic Medicine, Kirksville, MO

Background: Sunitinib, which was FDA approved in 2006 for mRCC; is an oral drug with inhibitory effects against several related protein tyrosine kinase receptors against several related protein tyrosine kinase receptors. It is well known that sunitinib increases progression free survival, however the question of how it has affected survival has not been fully elucidated.

Methods: Using the Surveillance, Epidemiology, and End Results (SEER) database, we evaluated 3259 cases and assessed survival in patient with stage 4 mRCC between 2001 and 2010. The cases were separated into two-year groups (2001-2005, 2006-2010) and stratified by American Joint Committee on Cancer stage (6th and 7th editions). Cox proportional hazards models were used to compare the year groups on overall and disease-specific survival with a maximum 5-year follow-up. To evaluate for sex and age the Chi squared method was used.

Results: For stage 4 mRCC, there was no significance in all cause survival time between the two-year groups (p=0.7103) (HR=1.016). Even with adjusting for sex and age there was no difference between the two groups in all cause survival (p=0.7186) (HR=1.015). The results for stage 4 disease-specific survival showed no significance between the two-year groups (p=0.5501) (HR=1.026). Even with adjusting for sex and age there was no difference between the two groups in all cause survival (p=0.5582) (HR=1.026).

Conclusions: There is no improved survival comparing the year groups before or after the FDA approval and subsequent implementation of sunitinib, according to the data from SEER.

Responsible Author: John Grider, D.O., JGrider@atsu.edu

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