The prognostic impact of the metastatic pattern in advanced Renal Cell Carcinoma (aRCC): a retrospective analysis of 306 patients (pts) treated with compassionate ipilimumab and nivolumab (IPI+NIVO)

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Objective:

The combination of IPI+NIVO is a first line option for IMDC intermediate-poor risk disease aRCC. Factors for risk stratification and pts selection remain, however, unmet clinical need. We assessed the different prognostic impact of pattern of metastases in aRCC that could be potential biomarker for IPI+NIVO treatment choice.

Methods:

aRCC who received IPI+NIVO among the Expanded Access Program available in Italy between April and October 2019 were included in the analysis. Clinical data were retrospectively collected. Statistical analyses were conducted with Software Stata 16. Univariable (UNV) and Multivariable (MLV) Cox regression analyses were conducted.

Results:

Among 86 Italian centers, 306 pts with aRCC were included. Pts were mostly males (74%), with a median age of 62 and prevalent clear cell tumor histology (86%). The most frequent sites of metastases (mts) were lung (70%), bone (31%), liver (18%), brain (8%) and pancreas (5%). One-year Overall Survival (OS) was 67%. Half of the pts had only 1 mts site, 26% had 2 mts sites and 9% had $\geq$ 3 mts sites. A higher number of mts sites directly correlated with worse OS. In MLV analysis, the prognostic factors associated with worse OS were poor IMDC (HR 2.94; $p<0.001$), non-clear cells histology (HR 2.20; $p=0.001$), brain mts (HR 1.96; $p=0.033$) and the presence of both lung and bone mts (HR 2.11; $p=0.026$). In terms of risk of progression, the presence of bone and liver mts together appeared the most impactful factor (HR 3.12; $p<0.001$).

Conclusions:

Our findings confirm that brain and bone mts, alone or in combination, may negatively affect OS in aRCC treated with first line IPI+NIVO. Despite the known favorable prognostic factor of lung mts alone, when associated with bone mts they unfavorably impact on OS. Number of mts and the type of mts sites should be considered in the risk stratification of aRCC pts.

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