INTRODUCTION

- Nivolumab improved overall survival in the 2nd line and later treatment of renal cell carcinoma (RCC).
- Recent studies suggested the antibiotic (ATB) use shortly before or after the immunotherapy as a factor for decreased survival.
- Herein, we evaluated the impact of ATB use on overall survival in RCC patients treated with Nivolumab in a multi-center cohort from Turkey.

RESULTS

- A total of 93 patients were included.
- The median age was 56 (24-79) and 76.3% of the patients were males.
- More than 80% of the patients had clear cell RCC. 53.8% of patients had more than 3 sites of metastases and 12.9% had brain metastases.
- Thirty-one patients used ATBs in the preceding or following three months from Nivolumab.
- In the median 10.87 months of follow-up, 35 of 93 patients died.
- The median OS of all cohort was 23.75±4.41 months. The overall survival was decreased in patients with recent ATB exposure (p=0.020), and in patients with brain metastases (p=0.011).
- While the number of metastases (<3 or 3, p=0.613), immune-related adverse events (p=0.109), IMDC risk group (p=0.474) did not have a significant effect on OS.
- In multivariate analyses, recent ATB exposure (HR: 2.226 95% CI: 1.116-4.441, p=0.023) and brain metastases (HR: 2.540 95% CI: 1.169-5.519, p=0.019) was associated with decreased OS.

METHODS

- The data from six hospitals on metastatic RCC patients treated with Nivolumab in the 2nd line or later were retrospectively evaluated.
- Histologic types (clear, non-clear), previous treatments, sites of metastases, the use of ATBs in the preceding and the following three months from immunotherapy recorded together with survival data.
- The association of clinical factors with OS was analyzed with univariate and multivariate analyses.

CONCLUSION

- In our study, patients with ATB exposure in the 3 months before or after the start of immunotherapy had decreased OS.
- Our findings support the meticulous risk-benefit assessments about ATB prescription in immunotherapy treated patients.

Conflicts of Interest: None to declare. 
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