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Antibiotic (ATB) therapy and outcome from nivolumab (N) in metastatic renal cell carcinoma (mRCC) patients (pts): Results of the GETUG-AFU 26 NIVOREN multicentric phase II study

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Background

Previous studies examined the impact of ATB on immune checkpoint inhibitor efficacy across a wide range of tumors, including genitourinary neoplasms. Perturbation of the gut microbiota has been indicated as a putative mechanism to explain this influence. We aimed to assess the impact of ATB in refractory mRCC pts.

Methods

The GETUG-AFU 26 NIVOREN phase II trial (NCT 0301335) assessed the activity and safety of N in metastatic ccRCC pts who failed anti-angiogenic regimen. Pts who received ATB between 60 days before until 42 days after N initiation were compared with those who did not. Progression-free survival (PFS), overall survival (OS), overall response rate (ORR) and toxicities were assessed. Multivariate Cox analysis was used to adjust for established risk factors: sex, age, international Metastatic RCC Database Consortium (IMDC) score, number of previous lines, hypoalbuminemia, and brain, bone and liver metastasis.

Results

Among 707 pts included between February 2016 and June 2017, 104 (14.7%) received ATB. Characteristics were well balanced except for IMDC score: 12% vs 19% good, 49% vs 57% intermediate, 39% vs 24% poor in ATB users vs non-users, respectively. Median OS was 13.0 (95%CI 8.1-19.8; 67/104) months for ATB users vs 25.0 (95%CI 22.4-28.4; 284/603) months in non-users [HR 1.77 (95%CI 1.36-2.31), $p < .0001$]. In multivariate analysis, ATB was still associated with worse OS [HR 1.59 (1.22-2.09), $p = 0.0008$]. Median PFS was 2.6 (95%CI 2.4-4.1; 90/104) months in ATB users vs 3.8 (95%CI 2.9-4.6; 504/603) months in non-users [HR 1.24 (0.99-1.55), $p = 0.0564$]. ORR was 15.1% for ATB users vs 21.1% for non-users ($p = 0.176$). Among ATB users, there was no complete response (CR) and 53 (57.0%) had progressive disease (PD), while 9 (1.5%) and 275 (47.3%) of non-users had CR and PD, respectively. The incidence of grades 3-5 toxicity leading to treatment stop was 26.9% among ATB vs 17.9% of non-users ($p = 0.031$).

Conclusions

ATB severely compromise OS and PFS in N-treated mRCC pts. We confirm the potential deleterious effect for ATB in pts treated with anti-PD1, and the suspected impact of microbiota lay the ground for interventional study.

Clinical trial identification

NCT 0301335.

Legal entity responsible for the study

Unicancer.

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Disclosure

E. Colomba: Financial Interests, Personal, Invited Speaker: Ipsen, Sanofi, BMS and Pfizer. B. Escudier: Financial Interests, Personal and Institutional, Invited Speaker: Bristol-Myers Squibb, Bristol-Myers Squibb, Ipsen, Roche , Pfizer, Oncorena, Aveo. L. Albiges: Financial Interests, Personal and Institutional, Advisory Role: declared consulting or Advisory Role: Novartis, Amgen (Inst), Bristol-Myers Squibb, Bristol-Myers Squibb (Inst), Ipsen (Inst), Roche (Inst), Novartis (Inst), Pfizer (Inst), Astellas Pharma (Inst), Merck (Inst). All other authors have declared no conflicts of interest.

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