1204P GOLFIG chemo-immunotherapy in metastatic colorectal cancer (mCRC) patients: A fifteen year retrospective analysis

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Background: Immune-checkpoint blockade has shown anti-tumor activity in MSI mCRC patients only, thus, the research of more efficacious immunological strategies for colon cancer treatment is still open. GOLFIG, is a safe and active chemo-immunotherapy regimen designed on the basis of preclinical immune-oncological findings and evaluated in two subsequent Phase II and III trials in mCRC patients (J Clin Oncol, 2005,23:8950; J Immunother, 2014;37:26). This regimen combines gemcitabine + FOLFOX poly-chemotherapy with salgramostim (GM-CSF) and low dose sc. aldesleukin, to improve both cross-priming and T-cell effector anti-tumor response. Here we report a fifteen-year retrospective analysis of all patients undergone this therapeutic approach.

Methods: This is a multi-institutional real-life study including one hundred-seventy-nine mCRC patients receiving GOLFIG regimen between October 2001 and November 2018 with a median follow up of 120 months. The treatment was administered to 62 patients (GOLFIG-2 trial, EUDRACT: 2005-003458-81) as a first-line and to 117 patients as second/third-line (49 enrolled in the GOLFIG-1 phase II trial and 68 as real life). Kaplan-Meier and Cox-regression were carried-out to relate their PFS and OS with sex, age, sidedness, RAS mutational status, previous treatment lines, baseline clinical parameters and treatment-related irAEs.

Results: We recorded a PFS and OS of 15.3 (95%CI:10.4-20.2) and 24.6 (95%CI:19.07-30.14) months, respectively, with 10% of the patients surviving more than ten years. Patients' outcome did not correlate with sex, sidedness and RAS. First line GOLFIG confirmed superiority over FOLFOX in term of PFS (HR = 0.58 p = 0.006) and OS (HR = 0.69, P = 0.06) (updated from GOLFIG-2 trial). Patients in first-line showed a longer PFS (HR = 0.69; p = 0.041) compared with the others, with no difference in OS. On the overall, a longer PFS and OS correlated with baseline neutrophil counts $\leq$ 4,500 cells/μl (HR:0.32; P = 0.003) and occurrence of irAEs (HR = 0.36; P = 0.0001) recorded in 24% of the cases.

Conclusions: These results confirm that the GOLFIG regimen is a reliable therapy for pretreated mCRC patients and offer the rationale to design combination trials with immune-checkpoint blockade.

Clinical trial identification: 1) GOLFIG-2 phase III trial; EudraCT: 2005-003458-81 2) GOLFIG-1 phase II trial; EudraCT no available, start July 2001.

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