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Determinants of oncologist's choice in offering drug holidays during first line therapy for patients with metastatic colorectal cancer

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Background: Overall survival of patients (pts) with metastatic colorectal cancer (mCRC) has been increasing over the last decades. "Drug holiday" strategies were introduced by the oncologists to reduce toxicity. We aimed at studying what are the

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abstracts

clinico-pathological and treatment factors that drive the decision to propose a "drug holiday" in first line.

Methods: This is a retrospective series of consecutive pts affected by mCRC treated with first line chemotherapy. The pts included were treated from 1/1/2005 to 15⁷03/2017 at University Hospital of Udine and IRCCS CRO of Aviano, Italy. A "drug Holiday" was defined as 56 or more consecutive days without chemotherapy during first-line. Upfront metastasectomy were excluded. Logistic regression was used to find association between predictors and "holiday offer" in univariate and multivariate analysis.

Results: A total of 648 pts were included. In detail, 215 received a drug holiday (33.2%) while 433 (66.8%) received continuous treatment. In univariate analysis, the variables associated with holiday were: non-upfront metastasectomy (OR 11.8, IC 95% 6.62-22.6, p < 0.001), thermoablation (OR 6.08, IC 95% 3.19-11.58, p < 0.001), primary tumor (OR 2.79, IC 95% 1.79-4.34, p < 0.001), G3-G4 pathological grade (OR 1.49, IC 95% 1.01-2.19, p = 0.046), adjuvant CT (OR 1.54, IC 95% 1.06-2.33, p = 0.023). Adjuvant RT (OR 1.62, IC 95% 0.99-2.62, p = 0.051) showed a trend towards association. More than one metastatic site at diagnosis (OR 0.59, IC 95% 0.42-0.83, p = 0.003) and nodal involvement (OR 0.57, IC 95%, 0.34-0.95, p = 0.032) were associated to continuous treatment. In multivariate analysis, only first line non-upfront metastasectomy (OR 9.89, IC95% 4.38-22.33, p < 0.001), thermoablation (OR 4.48, IC95% 1.97-10.19, p < 0.001) and primary tumor resection (OR 2.43, IC95% 1.14-5.19, p = 0.022) were independently associated with drug-holiday.

Conclusions: In our cohort, clinicians were more prone to propose a drug holiday in pts who had received non-upfront metastasectomy or thermo-ablation or were treated on their primary tumor. Having more than one site of metastasis at the beginning of 1st line and nodal involvement favored continuous therapy.

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