30- Oxaliplatin Rechallenge (FOLFOX 4) versus (FOLFIRI) in Metastatic Colorectal Cancer Patients Pretreated with Oxaliplatin (FOLFOX 4)

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Abstract

Background: For metastatic colorectal cancer, commonly used regimens are combinations of fluoropyrimidines such as 5-FU or capecitabine with either irinotecan or oxaliplatin, in addition to bevacizumab or antibodies against EGFR. There is no significant difference in terms of efficacy between FOLFIRI and FOLFOX and selection of one or the other regimen often depends on patients' comorbidities, institutional or personal preferences. After progression on first-line treatment, patients can benefit from the alternate regimen in second line. The optimal first-line regimen for metastatic colorectal cancer after oxaliplatin-containing adjuvant chemotherapy is not defined.

Aim: To compare the clinical outcomes of reintroducing FOLFOX 4 to the introduction of FOLFIRI after disease progression had occurred at least 1 year from the end of adjuvant treatment (FOLFOX 4).

Methodology: The current study is a prospective phase 3 study, which was done at Clinical Oncology and Nuclear Medicine Department, Ain Shams University Hospitals, during the period between Sept. 2015 and Nov. 2017, included a total number of 50 patients who were randomized into two equal groups, with locally recurrent and/or metastatic colorectal adenocarcinoma one year after adjuvant FOLFOX4, arm A was rechallenged with FOLFOX4, arm B received FOLFIRI. Institutional Ethical Committee approval was taken, the protocol was reviewed and approved by the Research Ethical Committee at the Faculty of Medicine, Ain Shams University on Sept. 2015.

Results: There is no significant difference as regard overall survival in both arms. In Arm A, median OS was 22.4 months vs 20.1 months in Arm B (P-value 0.728) with median follow up 25.5m. Regarding efficacy, the response varies among the two studies groups. In Arm A, the overall response rate (ORR) is 16% (4/25) and the disease control rate is recorded in 56% (14/25) of patients while in Arm B the ORR is 32% (8/25) and the disease control rate was recorded in 68 % (17/25) of patients. Median progression free survival 5.6 m in Arm A and 8.3 m in Arm B, with a significant difference (P-value0.024).

Conclusion: oxaliplatin rechallenge in mCRC offers anti-tumor activity in terms of tumor response rate, PFS and OS with manageable toxicity so the FOLFOX regimen is an appropriate comparator with other chemotherapy regimens used in treatment of advanced colorectal cancer.

Keywords: FOLFOX 4, FOLFIRI, mCRC