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Pilot study of the safety and feasibility of immediate adjuvant chemotherapy (IAC) in nonmetastatic colonic adenocarcinoma (nmCC).

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Abstract Disclosures

- **Abstract**

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Background: The optimal timing of adjuvant chemotherapy (AC) in nmCC is poorly defined. Delays in AC result in decreased survivalbut fear of postoperative complications often causes long intervals between surgery and AC initiation. Given the transient immune suppression, inflammatory changes and increase in circulating tumor cells occurring in the perioperative period, effective cytotoxic treatments should be considered at this time to limit metastatic spread. The immediate adjuvant chemotherapy concept intends to capitalize on the therapeutic benefits that can be achieved in the perioperative period (intraoperative and early postoperative). We aim to demonstrate that IAC is safe and tolerable for patients with nmCC. **Methods:** Patients with nmCC microsatellite stable invasive adenocarcinomas were treated with intravenous Leucovorin 20mg/m2 followed by a single dose of 5-Flurouracil 400mg/m2 at the time of minimally invasive surgical resection. High risk stage II and stage III received the first dose of standard AC at 14 days after surgery. Serial measurements of blood-based biomarkers (circulating tumor cells, cell free DNA, and neutrophil lymphocyte ratio were measured. Quality of life (QOL) was measured using EORTC QLQ-C30. **Results:** Of the 20 patients recruited, 40% had final pathology of stage III, 40% stage II and 20% stage I. All patients received intra-operative chemotherapy with no associated morbidity. Median length

of stay was 2 days (range of 2-4). Grade 1 complications were reported in 2 (10%) of patients. No grade 2 or higher adverse events were reported. There was no mortality. Early postoperative AC was administered to 65% of patients. The median time to AC was 14 days (range 14-36). Overall quality of life and health scores were similar before surgery and at 30-day postoperatively ($p < 0.05$). **Conclusions:** A protocol based on immediate adjuvant chemotherapy starting at the time of surgical resection was found to be safe and feasible in nmCC with no adverse effects on surgical morbidity or quality of life. Further prospective studies are needed to explore the oncologic benefit of this novel systemic treatment approach.

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