First cycle dose calculation in obese patients with colorectal cancers

E. Una Cidon1, P. Alonso2, S. Needham3, T. Hickish4
1Oncology Department, Royal Bournemouth Hospital, NHS Foundation Trust, Bournemouth, United Kingdom
2Clinical University Hospital, Valladolid, Spain
3Royal Bournemouth Hospital NHS Foundation Trust, Bournemouth, United Kingdom
4Oncology Department, Royal Bournemouth Hospital NHS Foundation Trust, Bournemouth, United Kingdom

Introduction: Optimal doses of chemotherapy drugs are established through randomized clinical trials. In adult patients, chemotherapy drug dosing is based on the patient’s estimated body surface area (BSA) and there is evidence that reductions from standard dose may compromise survival in the curative setting. However, many oncologists prefer to cap the BSA at 2.0m2 rather than use the estimated BSA. We have carried out an audit in our institution to know further about our practices in patients with colorectal cancers in the adjuvant or neoadjuvant settings.

Methods: We evaluated those patients with colon or rectal tumours who underwent adjuvant or neoadjuvant chemotherapy. All these patients had a BSA higher than 2. We assessed how we calculated the dose for the first cycle, reasons for dose reductions if any, toxicities grade 2 or above with the first cycle and dose for the second cycle if previously reduced.

Results: We evaluated 35 patients, 24 colon, 11 rectum. 23 male, 12 female. Median BSA 2.2 (2.1-2.4). In 5 patients dose of chemo was reduced by 20% for the first cycle based on comorbidities and/or PS. In 3 of them, the dose was full for the second cycle. In 12 patients dose was capped at 2.2 and 8 of them developed toxicities above grade 2 with the first cycle. All the rest received the dose adapted to the BSA.

Conclusion: Although the guidelines recommend prescribing chemotherapy according to BSA, there are still some limitations supporting this thought and previous clinical experience seems to play still an important role in dose calculations.