Patient Selection for Hyperthermic Intraperitoneal Chemotherapy in Patients With Colorectal Cancer: Consensus on Decision Making Among International Experts

Thomas Steffen, Eden Janina, Bijelic Lana, Glatzer Markus, Glehen Olivier, Goéré Diane, De Hingh Ignace, Li Yan, Moran Brandon, Morris David, Piso Pompiliu, Quadros Claudio, Rau Beate, Sugarbaker Paul, Yonemura Yutaka & Putora Paul Martin

BACKGROUND
Colorectal cancer (CRC) treatment for patients with peritoneal metastases is complex. The use of cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) has continued to be debated. The aim of the present study was to assess the consensus among international experts for decision-making regarding the use of CRS and HIPEC for patients with CRC.

MATERIALS AND METHODS
Of 15 experts invited, 12 had provided their decision algorithms for CRS and HIPEC for patients with, or at high risk of, peritoneal metastases from CRC. Using the objective consensus method, the results were transformed into decision trees to provide information on the consensus and discordance.

RESULTS
Only 1 scenario was found for which the consensus on performing HIPEC had reached 100%. The scenario was the treatment of young patients with complete cytoreduction and a peritoneal carcinomatosis index (PCI) of < 16 in the presence of certain risk factors. Five major decision criteria were identified: age, PCI, completeness of cytoreduction, extent of extraperitoneal metastases (EoMs), and, in the case of unverified EoMs, additional risk factors. Consensus was found regarding refraining from using HIPEC for older patients with a high PCI. The consensus further increased when addressing incomplete cytoreduction and an extensive extent of EoMs.

CONCLUSION
A definite consensus concerning the use of HIPEC was only determined for very selected scenarios. These findings can be used for general guidance; however, owing to the heterogeneity of each individual situation, the impracticality of presenting the information through decision trees, and the unclear future of the role of HIPEC in the adjuvant setting, a one-on-one transfer to daily clinical practice could not be achieved.
type: journal paper/review (English)
date of publishing: 15-07-2020
journal title: Clin Colorectal Cancer
ISSN electronic: 1938-0674