

Editorial

Colorectal Peritoneal Carcinomatosis: Some Remarks

Until recently, peritoneal carcinomatosis was recognized as an advanced stage of a disease in which the surgeon role limited to solve the complications resulting from the disease progression, with no additional effort capable to interfere in survival rates. Many times, we did not do a resection according to oncologic standards because we were astonished to find some peritoneals implants, a situation in which we made changes in the surgery process and the treatment became to have a palliative function. The paradigm changed. Considering that a fraction of patients with peritoneal carcinomatosis presents the disease restricted to the peritoneum and that they have low potential to lymph nodes and hematogenic dissemination, greater efforts in the surgical approach by cytoreduction procedures (CS) associated with the use of intraperitoneal hyperthermic chemotherapy (IPHC) began to be valued. Several studies demonstrated the positive impact this have in survival rates and disease control. At the same time, new drugs used in the treatment of the advanced disease created a less doomed perspective to patients with the systemic disease. More recently, this fact induced the acceptance that a select group of patients with peritoneal carcinomatosis originated from tumors potentially capable to present lymph node and hematogenic dissemination also can be seen under a maximum locoregional treatment perspective with CS and IPHC, expanding the group of procedure indications.

With the increase of indications, sufficient experience was acquired to answer some questions. Fundamental questions, however, continue without answers, due to the difficulties for establishing randomized prospective clinical studies. It becomes clear that patients with disease restricted to the peritoneum, with low potential to lymphatic and hematogenic dissemination constitute the ideal model to use CS and IPHC. On the other hand, the selection of patients with carcinomatosis originated from tumors with metastatic potential still is controversial, and there are many doubts. Some unanswered questions are: How to evaluate the disease extensiveness based on clinical data and image diagnostics to select candidates to the procedure? Is there a place for 'adjuvant' IPHC in the primary tumor approach in high-risk patients for peritoneal relapse? What is the better

therapeutic sequence for patients with peritoneal relapse - CS and IPHC followed by systemic chemotherapy with new drugs or systemic chemotherapy followed by CS and IPHC? What are the best drugs and dosis scheme for transoperative intraperitoneal use? Is the antecedent or the presence of hepatic metastases and/or lymph nodes a contraindication for the method? Is there a status-limited performance related to the potential risks of the procedure? What are the peritoneal cancer index values (PCI) capable to predict the complete cytoreduction possibility according to the origin of different primary tumors? What is the treatment proposal after a new relapse after CS and IPHC in peritoneum-restricted disease? In practice, the questions are countless and the various situations and answers are still limited.

In addition to the doubts related to treatment choice, the selection of candidates for CS and IPHC procedures is also difficult due to the non-despicable morbimortality rates. It is true that the complication rates declined progressively to acceptable levels in large procedures, but they need to decline more. In my opinion, the complications have decreased due to technical learning and to better patient selection. I believe that a better interaction among the different specialists (surgeons, anesthesiologists, clinic oncologists, intensivists doctors and infectologists, among others) will be able to reduce even more the morbimortality rates. Particularities in the anesthetic act and immediate postoperative handling, as well as local and systemic effects from surgical trauma related to IPHC should be more studied.

In this edition of Applied Cancer Research we will have the unique opportunity to learn in the review article "Cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (IPHC) in the management of peritoneal surface malignancies of colonic origin", written by Dr. Jesus Esquivel, Director of Peritoneal Surface Malignancy Program, St. Agnes Hospital, Baltimore, Maryland, one of the world's most renowned authority in CS and IPHC, the technical standardizations, the consensus and the controversies and what more the future promises us.

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