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Short-term Outcome of Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy: Preliminary Analysis of a Multicentre Study

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Abstract. *Aim: To assess the incidence of morbidity and mortality of Cytoreductive Surgery plus Hyperthermic Intraperitoneal Chemotherapy. Patients and Methods: A retrospective multicentric study was performed. Six hundred and eighty-three patients were recorded. Predictors of morbidity and mortality were evaluated with univariate and multivariate analysis. Results: In univariate analysis, older age, Eastern Cooperative Oncology Group score, a greater value of Peritoneal Cancer Index (PCI) and sub-optimal cytoreduction were correlated with higher mortality, while older age, presence of ascites, ovarian origin of carcinomatosis, closed technique, a greater value of PCI, longer operative time and sub-optimal cytoreduction were predictors of higher morbidity. In multivariate analysis, older age and a greater value of PCI were correlated with higher mortality; older age, ovarian origin of tumor, presence of ascites, closed technique and longer operative time were predictors of higher morbidity. Conclusion: Careful patient selection has to be performed to improve clinical outcomes.*

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Cytoreductive surgery (CRS) plus Hyperthermic Intraperitoneal Chemotherapy (HIPEC) represent a promising approach to treat peritoneal surface malignancies (PSM) (1-3). Actually, mortality and morbidity rates remain the most comprehensive measures used to assess short-term outcomes of a specific procedure. Surgical complications are frequently the main reason to modify patient treatment. Nevertheless, nowadays these two outcome measures remain hard to assess and identify by the surgical literature for the lack of standardization and under-reporting. For this reason, presently, in the surgical field, there is an absence of a clear system to classify complications. These considerations are valid also for CRS plus HIPEC. Furthermore, the issue is relatively complex because the appearance of postoperative complications related to surgery can be confounded with toxic side effects of the intraperitoneal chemotherapy.

To provide a substantial contribution to this field, we carried out a multicentre retrospective study. We report on the preliminary analysis of this experience.

Patients and Methods

A retrospective multicentre study from eight Italian Centres was performed. Six hundred and eighty-three patients submitted in