II.j) Primary peritional malignancies

G01

IMPROVED SURVIVAL WITH CYTOREDUCTIVE SURGERY, TOTAL PARIETAL PERITONECTOMY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY FOR SEROUS PAPILLARY PERITONEAL CARCINOMA- LARGEST SINGLE INSTITUTE EXPERIENCE

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Objectives

Serous papillary peritoneal carcinoma (SPPC) is a rare clinical entity. In the absence of established standard treatment, serous papillary peritoneal carcinoma patients have been managed with cytoreductive surgery and platinum and taxane based chemotherapy, similar to epithelial ovarian cancer. Based on the understanding of the pattern of spread, its multifocality, polyclonality and the high frequency of diffuse, widespread peritoneal metastasis, a robust rationale for cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) for SPPC exists. Herein we report the clinical outcomes of SPPC patients treated with cytoreductive surgery which included a total parietal peritonectomy in all patients and HIPEC.

Methods

Clinicopathological data of 22 patients with serous papillary peritoneal carcinoma (SPPC) was retrospectively analyzed from a prospectively maintained database from June 2000 to July 2017. Patients were treated with cytoreductive surgery(CRS,) total parietal peritonectomy, and HIPEC after preoperative chemotherapy(preCT). A total parietal peritonectomy was performed in all 22 patients irrespective of the presence or absence of gross macroscopic disease after (preCT). Survival curves were calculated using the Kaplan-Meier method.

Results

22 patients underwent cytoreductive surgery (CRS), total parietal peritonectomy and HIPEC. Cytoreduction included a total parietal peritonectomy which is a different approach to that used to treat epithelial ovarian carcinoma after preoperative chemotherapy. The median age at presentation was 62 years (Range 47–72). On histological evaluation, 18/30 (60%) total parietal peritonectomy specimens showed microscopic disease when no disease was evident macroscopically at surgical exploration. Positive Lymph nodes were found in 45.5% (10/22) patients. The median operating time was 554 min (Range 400–660). Grade III–IV surgical complications were recorded in 4/22 (18%) patients. There was no postoperative mortality. At a median follow up of 12 months, the five-year overall survival (OS) was 64.9%. The median OS was not reached. Median progression-free survival was 32.9 months and progression-free survival at 5 years was 33.2%.

Conclusion

Management of SPPC requires aggressive surgical approach and locoregional treatment. CRS with total peritonectomy+HIPEC presents as a promising treatment modality, offering improved survival in patients afflicted with this rare clinical entity.

G02

PERITONEAL SARCOMATOSIS IN PEDIATRIC AGE TREATED WITH CYTOREDUCTIVE SURGERY COMBINED WITH HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY: PRELIMINARY EXPERIENCE

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Objectives

The potential benefit of cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) remains poorly investigated in pediatric peritoneal sarcomatosis (PS). This work investigated the outcome of pediatric patients with PS selected for CS and HIPEC in a multidisciplinary setting of chemo- and radiotherapy.

Methods

Data on pediatric patients with histologically confirmed peritoneal sarcomatosis selected for CRS+HIPEC were retrospectively analyzed. All patients were selected and treated according to a sequential multimodality treatment including systemic chemotherapy, CRS+HIPEC and whole abdominopelvic radiotherapy. Only patients without systemic disease after preoperative chemotherapy were considered for CRS+HIPEC.

Results

From 2016 to 2017, 4 pediatric patients with PS (two females and two males, median age was 11 years) were selected for CRS+HIPEC after systemic chemotherapy. PS histology was, in three cases, desmoplastic small round cell tumor (DSRCT) and in one, primary peritoneal angiosarcoma. One patient with DSRCT was excluded during surgery for extensive unresectable disease. The remaining three patients underwent CRS with omentectomy and multiple peritonectomies. No visceral resection was necessary except for one splenectomy. Peritoneal Cancer Index ranged between 13 and 20. The grade of cytoreduction after surgery was CC0 in all patients. HIPEC was performed according to the open-abdomen technique using cisplatin alone or in association with doxorubicin at target temperature of 41.5°C., for 60 minutes. Operative times ranged between 430 and 580 minutes. The postoperative course was uneventful in all patients. The median length of stay was 13 days. All patients underwent postoperative whole abdominopelvic radiotherapy. After a median follow up of 15 months, two patients are still alive, one with liver recurrence. One patient died because of lung disease progression after 7 months. No patients experienced peritoneal recurrence.

Conclusion

Radical surgery associated with HIPEC in the context of a multimodality approach seems a valid and safe therapeutic option for pediatric PS and is associated with an optimal locoregional control of disease. The impact of this multimodality approach for pediatric PS needs to be further evaluated in large cooperative multi-institution studies.

G03

PRESERVATION OF FERTILITY AND OVARIAN FUNCTION IN YOUNG WOMEN UNDERGOING HIPEC

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Objectives

Cytoreductive surgery (CRS) comprises most of the times bilateral oophorectomy. Even in case of ovarian preservation, consequences of hyperthermic intraperitoneal chemotherapy (HIPEC) are unknown. Early induced menopause in young women may impact strongly long-term quality of life, mostly in patients with good prognosis.

Methods

We included from 1996 and 2016 young women (18–41 years old) who underwent CRS/HIPEC. Ovaries were preserved when macroscopically normal with extemporaneous confirmation. If ovaries were involved, bilateral oophorectomy was mandatory, and we performed cryopreservation of ovarian stroma (CPOS) for women who had a desire for pregnancy. We designed specific questionnaires investigating fertility, hormonal function and quality of life (based on MenQOL), and data were prospectively collected through these questionnaires and clinical follow up.

Results

Fertility: Among 87 women included, 37 had desire for pregnancy. Fertility sparing was considered in half of them (12 ovarian preservations, 3 bilateral oophorectomy with CPOS). Three women underwent disease progression but none had ovarian recurrence. Six women got pregnant after this strategy; two had grafts of ovarian stroma with restored hormonal function but no pregnancy so far.

Hormonal function: Among 63 women with bilateral oophorectomy, 25 were alive with remission. Data regarding hormonal function were available for 21 (14 responses to questionnaire, 7 through clinical follow-up). Most frequent symptoms were climacteric syndrome (n = 15), psychosocial symptoms (n = 13), loss of libido (n = 10), and weight gain (n = 9). Median quality of life score was 3 (out of 6). Menopause hormone therapy was prescribed to 14 patients. Over half of the patients who answered the questionnaire (n = 8) said preoperative information was insufficient, and only 3 patients had a specific gynecologic consult before surgery.

Conclusion

Fertility-sparing strategy led to pregnancy in 6 patients. Management of early-induced menopause is still insufficient and a specific consult must be included in perioperative care of CRS/HIPEC.

G04

PREDICTORS OF MORBIDITY & MORTALITY AFTER CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY FOR PATIENTS WITH OVARIAN CANCER: INDIAN SOCIETY FOR PERITONEAL SURFACE MALIGNANCY COLLABORATION STUDY

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Objectives

Even though cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) are associated with a high morbidity and mortality rates, it has been reported that CRS and HIPEC improved survival of selected patients with peritoneal carcinomatosis. Knowing the factors that will predict morbidity would help us in deciding which patients for HIPEC after CRS. This study aimed to identify risk factors for severe morbidity and mortality after CRS+HIPEC in patients with ovarian cancer treated at a single institution.

Methods

Patients diagnosed with stage IIIc ovarian cancer from March 2012 to December 2017 who underwent cytoreductive surgery+ HIPEC were included in the study. All data prospectively entered in the HIPEC registry was analyzed with main focus ongrade III–IV morbidity and mortality and factors predicting them. Risk factors were identified using logistic regression analysis.

Results

Study included 163 cases of primary or recurrent ovarian cancer. 20 were upfront, 94 interval and 49 recurrent cases. Mean duration of surgery was 9.5 hours, blood loss 1250 ml and PCI 19. Total, upper quadrant, pelvic, paracolic peritonectomy, glissons capsulectomy, mesenteric stripping was done in 42.5%,68.1%,69.3%, 72.5%,14.7% & 4.3% respectively. Multivisceral resection, diaphragmatic resection, bowel resection was done in 20.9%, 40.5% and 57.5%. Based on Common Terminology Criteria for Adverse Events, overall rate of morbidity grade III–IV was 18.4%, major being surgical 26%, hematological 20%, and electrolyte imbalance 19%. 60 day mortality was 5%.Re-operation rate was 9%. Reoperation was needed in 11% and the mortality rate was 2.4%.In multivariate analysis the identified risk factors for severe morbidity performance status, mean PCI >14, duration of surgery >10 hours, multivisceral resection, total peritonectomy, upper quadrant peritonectomy, more than one.

Conclusion

On evaluating the perioperative outcomes following CRS-HIPEC for ovarian cancer the impact on early mortality and morbidity was acceptable. The low mortality rate and 18.4% grade III–IV morbidity of CRS and HIPEC when weighed against overall benefit is reasonable. Optimal patient selection such as patients with PCI < 20 with good performance status seems to be of paramount importance to CRS and HIPEC. This multimodal treatment appears feasible for selected patients and in trained HIPEC centers.