

Maritza M. Martinez

Medical Student L2

LSU Health Sciences Center School of Medicine, New Orleans, Louisiana

Amelia Jernigan, MD

LSUHSC Dept of OBGYN, Division of GYN Oncology

“Hyperthermic Intraperitoneal Chemotherapy (HIPEC) as a Treatment for Gynecologic Cancer in the Gulf South Population”

Background and Objectives: Ovarian Cancer is the 5th leading cause of cancer death in women. One innovative approach is hyperthermic intraperitoneal chemotherapy (HIPEC), which can be utilized as a treatment modality in advanced peritoneal surface spreading malignancies. HIPEC has been shown in prospective randomized controlled trials to improve overall survival by about a year in select populations. There is also enthusiasm for its use on other peritoneal spreading malignancies, including endometrial and non-epithelial ovarian cancers. The treatment involves cytoreductive surgery followed by intraperitoneal administration of chemotherapy. Compared to intravenous systemic therapy, the therapeutic ratio is more favorable when chemotherapy is directly applied to microscopic residual tissue. This study aims to describe our experience with HIPEC use in the treatment of peritoneal spreading gynecologic cancers at LSU Health in New Orleans, the first gynecologic oncology HIPEC program in Louisiana.

Methods: We retrospectively evaluated patients who received the HIPEC procedure for metastatic gynecologic cancer at University Medical Center in New Orleans, Louisiana. Patients who received HIPEC for stage III or IV ovarian or endometrial cancers were included in the study. Eleven patients were identified using electronic medical records. Chart review was utilized to gather data points regarding basic demographics, procedure length, length of time in the ICU, chemotherapy received by patients, disease-free survival, recurrence of cancer, etc. Data was entered into REDcap with statistical analyses ongoing.

Results: Of eleven patients, age ranged from 45 to 68 years with the median age of 54 years. This diverse group identified as white (63.6%), black (27.3%), and Asian (9.1%). BMI ranged from 16.8 to 47.4 with the median BMI for these women being 24.9. Most patients were from Louisiana (81.8%) or Florida (18.1%). Most (91%) of the women had an ovarian cancer diagnosis, while 9.1% had an endometrial cancer diagnosis. Of the ovarian cancer diagnoses, 54.6% of women had high-grade serous carcinoma tumor types, 18.2% had granulosa cell tumor types, and 9.1% had metastatic adenocarcinoma tumor types. Of the endometrial cancer diagnoses, 9.1% had adenocarcinomas of the endometrium. The average length of procedure 6.85 hours (SD 1.3) and average length of ICU stay was 2.90 days (SD 2.1). Most (91%) of patients received intravenous chemotherapy treatments before the HIPEC surgery, using a combination of carboplatin and paclitaxel. All patients received intraperitoneal cisplatin at a dose of 100 mg/msq for 90 minutes at 40-41 C. Blood transfusion was common (72.7%); Only 9.1% of patients required pressors during the procedure and none experienced renal failure. With a mean follow up of 257.1 days (SD 349.9), 9 (81.8%) patients were alive with no evidence of malignancy.

Conclusion: Our unique and initial experience with HIPEC in the gynecologic oncology space in Louisiana is promising. It is safe and associated with favorable outcomes. We look forward to continuing to offer this innovative approach to the women of the Gulf South and collaborating to push the technique forward in the treatment of peritoneal spreading malignancies.

