

Treatment of Ovarian Carcinosarcoma and the Utility of Hyperthermic Intraperitoneal Chemotherapy (HIPEC): A Case Series



School of Medicine
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

Julia Canty, Dr. Daniel Spinosa, Dr. Marisa Moroney
University of Colorado Hospital, Department of Gynecologic Oncology

Abstract

Ovarian carcinosarcoma (OCS) is a rare and aggressive malignancy, comprising less than 5% of ovarian cancer cases. With a median overall survival of under two years, new treatment strategies are urgently needed. Hyperthermic intraperitoneal chemotherapy (HIPEC) is a novel treatment modality that delivers heated chemotherapy directly into the peritoneal cavity to enhance drug penetration and cytotoxicity. While HIPEC has shown promise in epithelial ovarian cancer, its efficacy in OCS remains largely unexplored. We present a case series of two patients with OCS treated with HIPEC, demonstrating a notable improvement in progression-free survival. Our findings support further investigation into HIPEC as a potential adjunct in the management of OCS.

Introduction

- Ovarian carcinosarcoma (OCS) is a rare, highly aggressive tumor with both epithelial and mesenchymal components.
- Standard treatment: Cytoreductive surgery + platinum-based chemotherapy.
- Prognosis remains poor, with high recurrence rates and a median overall survival of ~16 months.
- HIPEC has demonstrated improved survival in epithelial ovarian cancer but is understudied in OCS.

Methods

- Retrospective review of two patients with OCS who underwent cytoreductive surgery with HIPEC at the University of Colorado Hospital.
- Clinical data extracted: patient demographics, disease stage, treatment modalities, progression-free survival (PFS), and overall survival (OS).

Hyperthermic Intraperitoneal Chemotherapy (HIPEC) Results

- **Patient 1** (58-year-old female, diagnosed 2018): Underwent HIPEC with cisplatin after cytoreductive surgery. PFS: 38 months.
- **Patient 2** (62-year-old female, diagnosed 2021): Underwent HIPEC with cisplatin after cytoreductive surgery. PFS: 36 months.
- Both patients tolerated HIPEC well, with no unexpected complications.

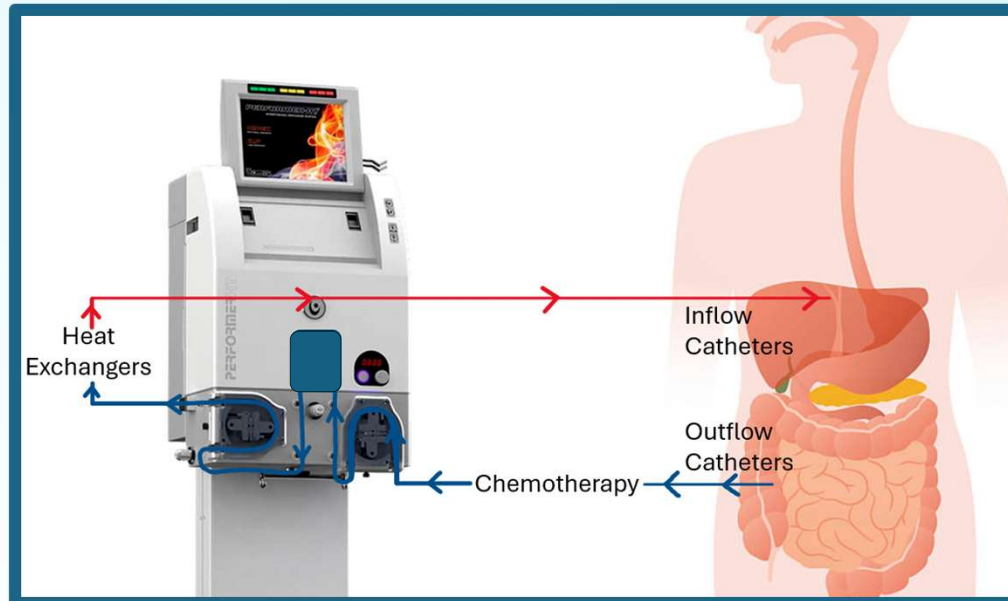


Figure 1: Diagram demonstrating the procedural details of hyperthermic intraperitoneal chemotherapy (HIPEC). Key details utilized in treatment of ovarian carcinosarcoma are detailed below:

- Chemotherapy type: Cisplatin
- Chemotherapy dose: 100 mg/m²
- Duration of treatment: 90 minutes
- Infusion temperature: 41-43 °C

Conclusions

- Average PFS for patients included in this study:
37 months
- Compare to typical median PFS for OCS: <12 months
- HIPEC shows promise in extending progression-free survival in OCS.
- Further research is necessary to establish its role in standard treatment protocols.
- A larger multi-institutional study is recommended to confirm these preliminary findings.

Disclosures

The authors have no financial interests to disclose.

Acknowledgements

I would like to thank Dr. Marisa Moroney, Dr. Dan Spinosa, and Dr. Lindsay Brubaker for their encouragement and guidance on this project. I would also like to thank the Anschutz Library at the University of Colorado for their support in completing a literature review.