

Locoregional Therapy in Ovarian Cancer Metastasis: An Area Necessitating Further Investigation

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INTRODUCTION

- Ovarian cancer has the highest mortality rate out of all the gynecological malignancies.¹
- The standard of care for advanced-stage ovarian cancer includes debulking surgery with chemotherapy.² Unfortunately, 60-70% of patients have recurrence.^{2,3}
- Locoregional treatment like transarterial chemoembolization (TACE), transarterial radioembolization (TARE), and bland transarterial embolization (TAE) can be an option to control local tumor burden in patients with refractory disease
- These therapies are shown to be effective in hepatocellular carcinoma and cervical cancer.^{4,5}

PURPOSE

This presentation aims to explore the evolving role of locoregional therapy in the treatment of metastatic ovarian cancer and encourage further investigation in this area.

METHODS

A review of literature was conducted through PubMed, Scopus, Embase, and Web of Science focusing on management strategies of refractory ovarian cancer with TACE, TARE, and TAE. The search included systematic reviews, narrative reviews, clinical trials, retrospective cohort studies, prospective cohort studies published through 2024.

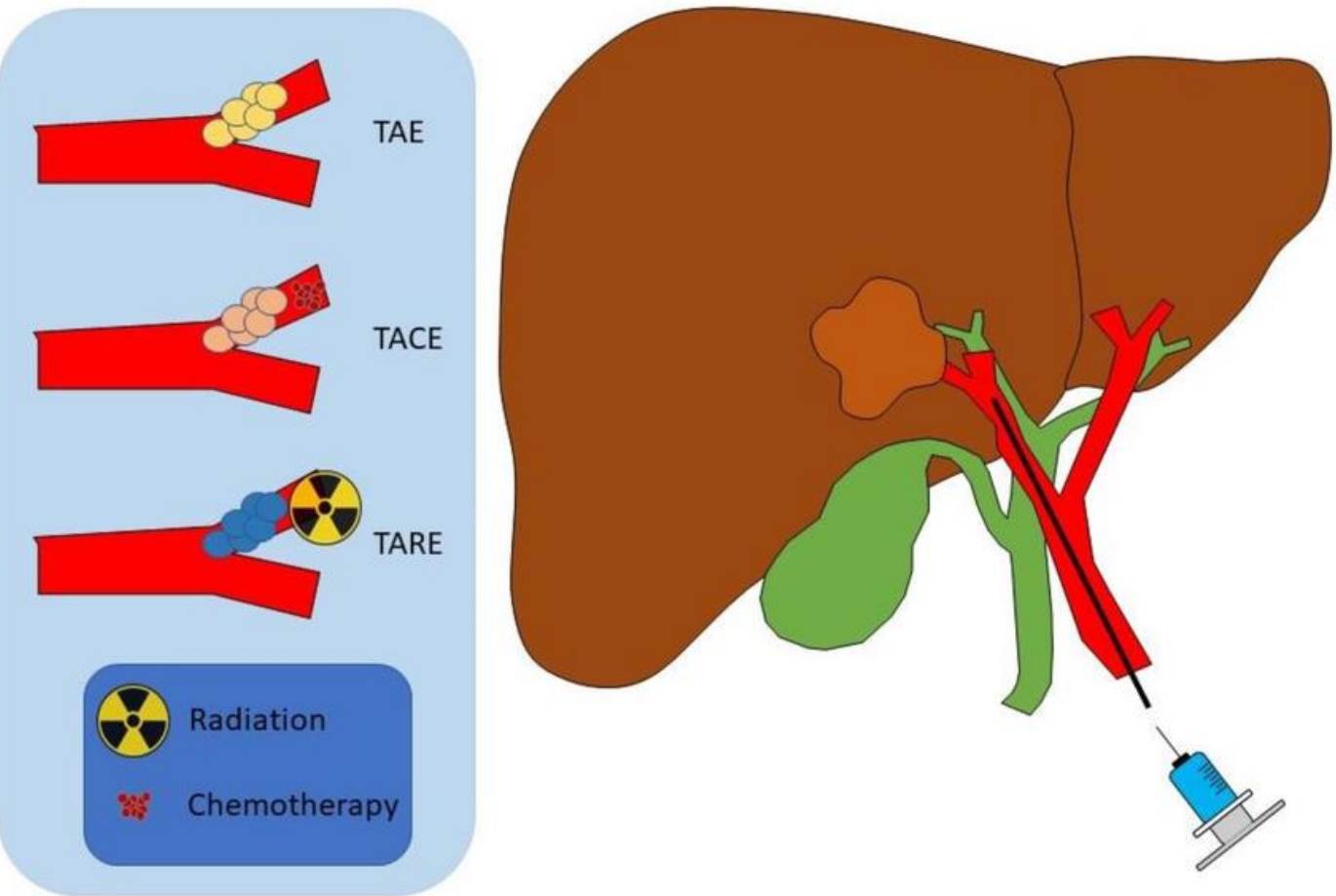


Figure 1. Graphic illustrating bland transarterial embolization (TAE), transarterial chemoembolization (TACE), and transarterial radioembolization, adapted from Gorji et al.

RESULTS

Ovarian Carcinoma Liver Metastasis (OCLM)

- Lacayo et al. demonstrated the overall survival of patients with unresectable OCLM was significantly longer in patients with hepatic artery embolization as opposed to those with TARE ($p = 0.02$)⁷
 - Of note, patients in the TARE group had significantly larger tumors and longer time intervals from diagnosis to first embolization⁷
- In contrast, Zhou et al. showed treatment of OCLW with resin yttrium-90 TARE had an overall survival rate of 90% and progression free survival rate of 70%⁸
- Vogl et al. found that utilizing TACE in the treatment of OCLW yielded median and mean survival times of 14 and 18.5 months, respectively, with no difference between local chemotherapy regimens⁹

Ovarian Carcinoma Non-Liver Metastasis

- Seki et al. illustrated that locoregional treatment achieved objective local and overall response rates of 50.0% and 30.8%, respectively. Furthermore, the median overall survival times of patients who achieved a local response was 37 months compared to 10 months in those who did not ($p < 0.0001$)¹⁰

Gynecologic Cancers

- Vogl et al. showed patients with gynecologic cancers treated with TACE had a median overall survival and progression free survival of 16.15 months and 13.19 months, respectively⁶

CONCLUSION

Locoregional treatments represent a promising palliating therapy for a select patient population with ovarian cancer. However, existing data is limited, and robust prospective studies must be conducted to substantiate their effectiveness in alleviating tumor burden and increasing overall survival.

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