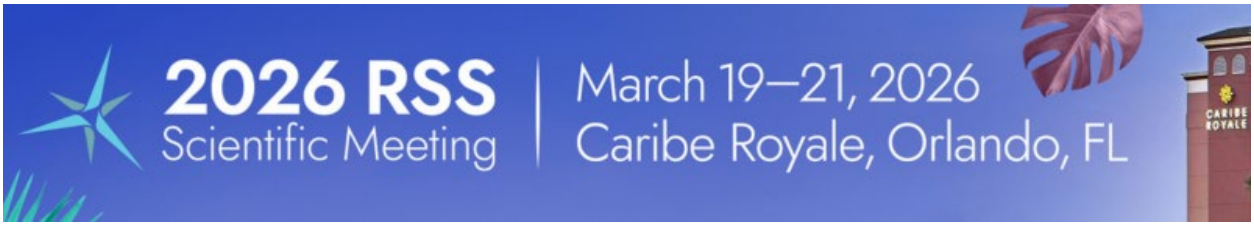

How to Safely Give Stereotactic Ablative Radiotherapy with High Dose or Multiagent Systemic Therapy

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Objectives: This study serves to evaluate the efficacy of SABR given concurrently with high dose and multiagent systemic therapy during the off-week of systemic therapy.

Methods: A review of patients between 2004 until 2025 treated with SABR and concurrently systemic therapy was conducted. Radiation induced side effects were analyzed using Common Terminology Criteria for Adverse Events version 5.0.

Results: Seven patients with 13 lesions were included in this study. The six different systemic therapy regimens used were:1 – carboplatin, paclitaxel, and pembrolizumab (1), 2 – Fluorouracil & Panitumumab (1), 3 – capecitabine (3), 4 – FOLFIRI (2), 5 – FOLFIRINOX (1), 6 – enfortumab vedotin and pembrolizumab (1). The most common SABR target was the lung and the most common SABR regimen was 45Gy in 3 fractions. Median PTV was 10cm3. Median Time from last systemic therapy infusion to SBRT was 7 days. Median time from last SBRT fraction to next systemic therapy infusion was 2 days. Median follow-up was 8.2 months. There were no grade 3 or higher toxicities reported. Out of the 13 lesions treated, there was only 1 local/regional failure and 2 distant failures. Median overall survival was 18.4 months.

Conclusion(s): SABR given concurrently with multiagent and high dose systemic therapy during the off-week of therapy is a safe and efficacious option. This treatment technique allows for patients to remain on systemic therapy without any interruptions. Therefore, SABR can be a preferred local ablative treatment for patients with oligometastatic and oligoprogressive cancer who are on systemic therapy.