RESULTS

Progressive Disease
Kaplan
Patients with Immunotherapy irradiated melanoma lesions exhibited
Patients who received and treatment

3. Department of Radiation Oncology, Brody School of Medicine. Greenville, North Carolina
carries the highest mortality rate of all skin

Y

type, dosage amount, radiation biologically

Immune checkpoint inhibitors
Stable Disease
Partial Treatment Response
Abscopel Effect
In 7 patients with non

Oncoimmunology
Vohra, MD
Brody School of Medicine, East Carolina University. Greenville, North Carolina.
Little is known about the mechanism behind the
Combination CTLA
Complete Treatment Response
Mann
is to better characterize survival in Stage IV

Criteria
Institutional Retrospective Review
Data

• Institutional Retrospective Review (between 2008-2021)
• Criteria included melanoma diagnosis = radiation treatment (RT) + immunotherapy treatment within 6 months of RT
• 20 total patients selected, 7 of which had multiple tumor lesions to follow

• Patient characteristics including age at RT, gender, and comorbidities
• Immunotherapy treatment type, timing in accordance to RT, and number of cycles
• Radiation treatment type, dosage amount, radiation biologically
• Radiation treatment endpoints include survival status, disease progression status, and radiographic response of lesions treated with radiation therapy and those
• Radiation treatment measured according to RECIST or PERCIST criteria

• Kaplan-Meier survival curves for both overall and progression-free survival using log-rank test
• Mann-Whitney U Test analysis against PERCIST/RECIST response for radiation-treated index tumor values
• Abscopel Effect: For 7 patients with non-treated lesions, percent change was calculated for both the time before the start of treatment and after treatment. Percent change was compared to the percent change from treatment start to patient follow-up visit, and is reported as the percent change to reflect the change in rate of tumor response to RT

DISCUSSION/CONCLUSIONS

• Younger patients had worse survival as well as less favorable PERCIST/RECIST response to RT compared to older patients. This was an unexpected, novel finding not seen in patients receiving immunotherapy alone. This may reflect differences in immunotherapy response in patients receiving both radiotherapy and immunotherapy that needs to be further investigated.
• Combination CTLA-4 and PD-1 therapy was correlated with better PERCIST/RECIST tumor response, but did not significantly affect survival times, and further research is needed to understand the interaction of immune therapy and radiation.
• There was significantly lower survival among intracranial lesion patients. This is most likely explained by lower expectancy in brain metastasis compared to other metastasized sites. No difference was found in PERCIST/RECIST response in the irradiated lesions between the groups. One possible explanation is that there is worse immunogenic response in the brain.
• However, the trend of our patients with irradiated intracranial lesions exhibiting a more favorable delta-delta in un-irradiated tumors challenges the understanding as the brain is a less immunogenic tissue. Further research in larger cohorts and better tools to radiographically assess abscopel response is needed.

REFERENCE