

effects. While advanced SRT platforms are widely available in urban centers, rural/suburban patients face geographic and socioeconomic barriers to access SRS. For this reason, we conducted a multi-institutional Phase 2 clinical trial to test the safety and efficacy of 3-5 fraction frameless fractionated stereotactic radiotherapy (FFSRT) for brain metastases in an integrated academic satellite network

**Materials/Methods:** This IRB-approved Phase 2 trial was conducted for patients  $\geq 18$ -years-old with 1-4 brain metastases. Brain metastases involving the optic pathway or brainstem were excluded. Gross tumor volume (GTV) was delineated with a volumetric brain MRI and planning target volume (PTV) was GTV + 2 mm margin. Radiation dose was based on GTV size:  $< 3.0$  cm, 27 Gy in 3 fractions, and 3.0-3.9 cm, 30 Gy in 5 fractions. Toxicity was evaluated using the Common Terminology Criteria for Adverse Events (CTCAE) version 4.

**Results:** Of 76 evaluable patients, the median age was 67 years, 56.6% were female, 82.9% were white/Caucasian and 89.6% had an Eastern Cooperative Oncology Group performance status  $\leq 2$ . Most brain metastases were from lung cancer (51.3%) and breast cancer (15.7%). With median follow-up of 10 months, local control was 93%, median survival was 1.8 years (95% confidence interval (CI): 1.5-2.4 years), 1-year OS was 73.8% (95% CI: 0.59-0.84), and 2-year OS was 31% (95% CI: 0.12-0.52). There were no CTCAE Grade  $\geq 3$  protocol-related adverse events.

**Conclusion:** Outcomes of this trial compare favorably with contemporary SRT trials for brain metastases. FFSRT may provide opportunities to expand SRS access for underserved populations across the MDACC enterprise and in future clinical trials for brain metastases.

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## 2210

### Cannabis Use Patterns among Patients with Early-Stage Breast Cancer in a Large Multicenter Cohort from a State with Legalized Adult Non-Medical Cannabis

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**Purpose/Objective(s):** Cannabis use among patients with cancer is an area of great interest given its widespread acceptance despite the lack of supporting clinical data. The absence of data limits the understanding of potential clinical benefits of cannabis and the ability of providers to deliver evidence-based recommendations for patient care. We explored cannabis use patterns in patients with early-stage breast cancer in a large multicenter cohort in a state with legalized adult non-medical cannabis.

**Materials/Methods:** Initial questions about cannabis use history and frequency were introduced in Michigan Radiation Oncology Quality Consortium (MROQC) breast cancer patient surveys on 2/1/2020 for female patients receiving radiation after lumpectomy for non-metastatic breast

cancer. Expanded questions were introduced on 6/28/2022 to assess mode of administration, active ingredient, and reason for use. Summary statistics were generated. A multivariable model using logistic regression identified patient characteristics associated with cannabis use.

**Results:** Among 3948 eligible patients, 2738 (69.35%) completed survey questions, and 2462/2738 (89.9%) completed the initial question on cannabis use. Among those, 364/2462 (14.8%) noted cannabis use in the last 30 days, 588 (23.9%) noted remote use ( $>30$  days ago), 1462 (59.4%) reported never having used cannabis, 44 (1.8%) preferred not to answer cannabis use questions, and 4 (0.4%) did not provide use history. Younger age [age  $<50$  vs 60-70, OR 2.5 (95% CI 1.65, 3.79)  $p < 0.001$ ], Hispanic ethnicity [OR 2.20 (95% CI 1.06, 4.56)  $p = 0.03$ ], history of smoking [OR 2.56 (95% CI 1.88, 3.48)  $p < 0.001$ ], current smoking [OR 4.70 (95% CI 3.22, 6.86)  $p < 0.001$ ], and prior chemotherapy [OR 1.40 (95% CI 1.00, 1.96)  $p = 0.05$ ] predicted recent cannabis use in a multivariable model. Of the 364 patients endorsing cannabis use in the last 30 days, 89 (24.5%), 72 (19.8%), 29 (8.0%), 66 (18.1%), 30 (8.2%), and 78 (21.4%) reported using cannabis 1-2 days, 3-5 days, 6-9 days, 10-19 days, 20-29 days, and all 30 days, respectively. The most common modes of administration among 76 individuals who responded to the expanded questionnaire to date were oral (39.4%), smoking (30.3%), and topical (10.5%). The products used contained tetrahydrocannabinol (THC; 26.3%), cannabidiol (CBD; 19.7%), balanced levels of THC and CBD (19.7%), or active ingredients that were unknown to the patient (34.2%). Patients frequently endorsed cannabis use for insomnia, anxiety, and pain.

**Conclusion:** Many patients with early-stage breast cancer are using cannabis. Younger age, Hispanic ethnicity, smoking, and chemotherapy history are predictors of cannabis use. Patients are often unaware of the active ingredients in the products that they use, suggesting an important role for patient education and a need to equip providers to advise patients in their care.

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### A Survival Score for Patients Treated with Whole-Brain Radiotherapy plus Simultaneous Integrated Boost for Brain Metastases

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