of any grade were observed. The median follow-up was 19 months (5-71). The 1 and 2-year overall survival rates were 97 and 91 %. The 1 and 2-year cancer-specific survival were: 98% and 95%. Local control in the irradiated volume is 100 %, with 7 distant thoracic (outside irradiated volume) recurrences.

Conclusion: In selected patients with primary and metastatic lung tumors, single fraction SBRT is an excellent treatment option in terms of survival, local control and toxicity. Our encouraging results are similar to those of more fractionated regimens.

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Racial Differences in Toxicity in Non-Small Cell Lung Cancer Patients Treated with Thoracic Radiotherapy

A.M. Laucis,[1] K. Hochstedler,[2] M. Schipper,[2] P.A. Paximadis,[3] T.P. Boike,[4] D.P. Bergsma,[5] D.E. Spratt,[1] R.T. Dess,[1] M. Mietzel,[1] M.M. Dominello,[6] M.M. Matuszak,[1] R. Jagsi,[1] J.A. Hayman,[1] L.J. Pierce,[1] and S. Jolly[1]; *[1]Department of Radiation Oncology, University of Michigan, Ann Arbor, MI, [2]Department of Biostatistics, University of Michigan, Ann Arbor, MI, [3]Lakeland Radiation Oncology, St. Joseph, MI, [4]21st Century Oncology, Troy, MI, [5]Department of Radiation Oncology, Mercy Health Saint Mary's, Grand Rapids, MI, [6]Department of Radiation Oncology, Barbara Ann Karmanos Cancer Institute, Wayne State University School of Medicine, Detroit, MI*

Purpose/Objective(s): Racial disparities are of particular concern for lung cancer patients given historical discrepancies in surgery rates for Black lung cancer patients that resulted in lower survival and higher recurrence rates for Black patients. The goal of this study was to examine racial differences in thoracic radiotherapy (RT) treatments and toxicities in non-small cell lung cancer (NSCLC) patients.

Materials/Methods: A large multi-institutional statewide prospectively collected patient-level database of Stage II-III NSCLC patients who received thoracic RT from Mar 2012 to Nov 2019 was queried to assess relationships between race and other variables. Race (White or Black) was defined by patient self-report. Race other than White or Black comprised a small minority of patients (n = 46) and was excluded. Provider reported toxicity was defined by the Common Terminology Criteria for Adverse Events v5.0. Patient reported toxicity was determined by validated questionnaires. Multilevel logistic modeling and t-tests were performed to assess relationships between race and other variables.

Results: 1441 patients from 24 institutions with mean age of 68 years (range 38 − 99) were evaluated; 226 patients were Black, of whom 61% were treated at 3 facilities. Race was not significantly associated with RT treatment approach, concurrent chemotherapy use, or dose to organs at risk or PTV. There was increased patient reported general pain in Black patients at the end of RT (p = 0.004, see Table 1) but no other patient reported toxicities were significantly different by race. Black patients were significantly less likely to have provider reported grade 2+ pneumonitis (odds ratio (OR) 0.36, p = 0.03), even after controlling for many patient and treatment factors. A trend towards increased provider reported grade 2+ esophagitis in Black patients was also observed (OR 1.51, p = 0.06).

Conclusion: In this large multi-institutional study, we reassuringly found no evidence of differences in RT treatment or chemotherapy approaches by race. We did, however, detect racial differences in patient and provider reported toxicities that has motivated a formal concordance analysis currently in progress. These relationships are multi-factorial and causality cannot be determined from our observational database; however, the findings may have implications for the care of racially diverse patients and warrants further research.

Author Disclosure: **A.M. Laucis**: Stock Options; Biomarker.io. I was elected to serve a one-year term on the American College of Radiology Resident and Fellows Section Executive Committee and as a voting member of the American College of Radiology Council; American College of Radiology. I was elected to serve a two-year volunteer term as the Resident and Fellow Representative. **K. Hochstedler**: None. **M. Schipper**: None. **P.A. Paximadis**: None. **T.P. Boike**: Honoraria; ASTRO APEx Reviewer, Medivation/Astellas, Janssen; NCI Prostate Cancer Task Force. **D.P. Bergsma**: None. **D.E. Spratt**: Advisory Board; Daniel Spratt. **R.T. Dess**: None. **M. Mietzel**: Stock; Amgen, Mylan NV, Cigna. **M.M. Dominello**: None. **M.M. Matuszak**: Employee; William Beaumont Hospital. **R. Jagsi**: Research Grant; American Cancer Society, NCCN, NIH, Breast Cancer Research Foundation, Abbott and AbbVie Pharmaceuticals, Susan Komen Foundation, Greenwall Foundation, Michigan Radiation Oncology Quality Consortium. Honoraria; Vizient, Amgen. Advisory Board; Eviti, Susan Komen Foundation, Greenwall Foundation. Travel Expenses; Amgen. Stock. **J.A. Hayman**: Research Grant; Blue Cross Blue Shield of Michigan. Board member; ASTRO. **L.J. Pierce**: Employee; Michigan Medicine. Consultant; Up To Date. Patent/License Fees/Copyright; PFS Genomics. Executive Leadership; American Society of Clinical Oncology, MROQC. **S. Jolly**: None.

Abstract 2329; Table **Patient and provider reported toxicities (all in %)**

	Timepoint	Pre-RT		End of RT		3 months post-RT	
	Race	White	Black	White	Black	White	Black
Patient Reported Bother Score 3+ Toxicity (%)	Side Effects (general)	4	6	21	21	7	10
	Cough	30	26	24	27	21	17
	Shortness of Breath	25	26	19	17	21	18
	Chest Pain	9	7	10	13	6	7
	General Pain	15	22	17*	30*	10	11
	Trouble Swallowing	1	0.4	5	4	0.3	0.9
Provider Reported Grade 2+ Pneumonitis (%)		0.7	0	0.4	0.5	7	4
Provider Reported Grade 2+ Esophagitis (%)		2	3	33	35	3	0

Note: *t-test p-value = 0.004.

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Role of Prophylactic Cranial Radiation in Extensive Stage Small Cell Lung Cancer: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

S. Rathod, A. Dubey, S. Kakumau, B.M. Bashir, A.D. Chowdhury, A. Leylek, and R. Koul; *Department of Radiation Oncology, CancerCare Manitoba, Winnipeg, MB, Canada*

Purpose/Objective(s): Extensive stage small cell lung cancer (ES-SCLC) carries a high risk of brain metastasis. (BM). Studies have shown contrasting findings and the role of Prophylactic cranial radiation (PCI) despite its potential benefits its role in ES-SCLC remains a controversial topic. We performed systematic review and meta-analysis of randomized phase III studies to evaluate the Overall survival (OS) benefit.

Materials/Methods: We conducted an electronic search of PubMed and Embase with no language, year, or publication status restrictions and evaluated randomized controlled trials (RCT) addressing the role of PCI in ES-SCLC. PRISMA guidelines for systematic review and Cochrane methodology for meta-analysis were followed. We evaluated overall survival (OS), progression-free survival (PFS), and risk of brain metastasis. The hazard ratio (HR) with 95% confidence interval (CI) and p-value were recorded. The log HR and its variance were pooled using inverse variance weighted average method (DerSimonian-Laird fixed-effects model) and expressed as a hazard ratio or odds ratio, as appropriate, with respective 95% CI and p-value. Heterogeneity was assessed by I^2 percentage that expresses the percentage variability of the results related to heterogeneity rather than to the sampling error. Random-effects model was selected if significant statistical heterogeneity ($I^2 > 50\%$) was observed. The statistical analysis was performed using Revman 5.3.