Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

(pCR). Secondary outcomes included presence of any treatment response and incidence of radiation-associated toxicity. Outcomes were analysed with univariable logistic regressions and stepwise multivariable logistic regressions. Descriptive statistics were used to characterize the sample population.

Results: Ninety-seven patients met inclusion criteria. The median Charlson Comorbidity Index was 5. The median clinical T- and N-stage were 3 and 1, respectively. 37.5% of patients had threatened circumferential resection margins, and the median tumour distance from the anal verge was 6cm. Patients received a radiation dose of 25 Gy in five fractions. 11% of patients received short-course radiation as part of total neoadjuvant therapy (TNT), and were excluded from further analysis. 44% of patients were using statins during neoadjuvant therapy. 9.2% of patients had pCR and 29% had no treatment response on pathology. 43% of patients had radiation-associated toxicity, with 6.3% of patients having toxicity of Grade 3 or more. Statin use was not associated with increased pCR (OR 1.63, 95%CI 0.38-7.02, p=0.51), however it was associated with a significantly lower incidence of no pathologic response (OR 0.31, 95%CI 0.10-0.93, p=0.04). On stepwise multivariable logistic regression, statin use (OR 0.20, 95%CI 0.04-0.94, p=0.04) and male gender (OR 0.19, 95%CI 0.04-0.77, p=0.02) were associated with decreased incidence of no pathologic response. Incidence of radiation-associated toxicity was unchanged with statin use (OR 0.83, 95%CI 0.36-1.90, p=0.66).

Conclusions: Statin use during neoadjuvant short-course radiation for rectal cancer did not increase pCR, but was associated with pathologic treatment response. Further prospective study evaluating the use of statins in conjunction with neoadjuvant short-course radiation is warranted.

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SINGLE FRACTION PERIPHERAL LUNG SBRT DURING THE GLOBAL COVID-19 PANDEMIC AT A CANCERCARE MANITOBA: AN ANALYSIS OF TECHNICAL FEASIBILITY AND CLINICAL SAFETY

Salem Alfaifi, Julian Kim, Shrinivas Rathod, William Hunter, Ahmet Leylek, Naseer Ahmed, Sankar Venkataraman, Niranjan Venugopal, Bill Kane, Amitava Chowdhury, Arbind Dubey, Gokulan Sivananthan, Saranya Kakumanu, Bashir Bashir
University of Manitoba, Winnipeg, MB

Purpose: In response to the COVID-19 pandemic, a single fraction peripheral lung SBRT program was established to minimize potential COVID-19 exposures. This analysis aims to review clinical and treatment characteristics with associated toxicities in appropriately selected patients for this newly implemented technique.

Materials and Methods: From May 2020 until April 2022, patients with peripheral lung tumours who met eligibility for 3400cGy/1 fraction SBRT were treated at CancerCare Manitoba, a tertiary academic cancer center. Patient, treatment, and toxicity parameters were retrospectively collected. Radiation dosimetric parameters were tabulated. Toxicities were quantified using CTCAE v5.0. Fisher's exact was used to assess the differences in toxicities with clinical and dosimetric parameters. P-value < 0.05 was considered significant.

Results: 26 patients were analyzed with a median age of 74 (IQR: 67-80) and 62% were females. 92% were smokers and 54% had COPD. All patients were ECOG £ 2. The majority of patients (96%) had early-stage primary lung cancer while 4% had pulmonary oligometastatic cancer. 38% of patients were medically inoperable while 35% were treated on SABR-BRIDGE protocol and 27% refused surgery. A total of 26 peripheral lesions were treated with median maximal dimension of 1.7 cm (IQR: 1.4-2), ITV 4.9 cm^3 (IQR: 3.5-8.6) and PTV 17.9 cm^3 (IQR: 12.7-26.5). 81% of patients had PTV located within 1 cm form chest wall. After a median follow-up of 6 months (IQR: 3.5-17), 65% of patients experienced grade £ 2 toxicities and no patients experienced ³ grade 3 toxicity. Radiation pneumonitis was the most common toxicity (42.3%; 5/11 with asymptomatic radiographic) followed by chest wall pain (35%; 4/9 with grade 2) and fatigue (30%). Two patients (8%) had rib fractures. Both radiation pneumonitis and chest wall pain rates were significantly higher in patients with tumour diameters >1.5 cm (p= 0.005 and 0.036). No other significant differences were observed between clinical or dosimetric parameters and development of any grade radiation pneumonitis or chest wall pain (p > 0.05). Patients with ribs fractures were observed to have larger tumours diameter (mean 3.2 vs. 1.7 cm), ITVs (mean 30 vs. 6.2 cm^3), PTVs (mean 61 vs. 20 cm^3), chest wall $V30_{Gy}$ (mean 4.8 vs. 0.5 cm^3), and ribs $V30_{Gy}$ (mean 1.1 vs. 0.1 cm^3). 2/3 patients with disease failure who were treated on SABR-BRIDGE underwent salvage surgeries. 35% and 20% viable tumors were found after 12 and 17 months respectively.

Conclusions: Single fraction peripheral lung SBRT is a practical and safe option with no grade ³ 3 toxicities. Radiation pneumonitis and chest wall toxicities were higher in patient with larger tumours. Also, patients with rib fractures were observed to have larger tumours and higher $V30_{Gy}$ to chest wall and ribs. Careful patients' selection and dosimetric efforts to limit high dose fall-off to chest wall and ribs may limit these toxicities.

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SETUP AND TREATMENT EFFICIENCY OF TWO PROSTATE SBRT RECTAL PREPARATION TECHNIQUES: EXPERIENCE FROM PROGRAM DEVELOPMENT AT A COMMUNITY CENTRE

Adam Gladwish[1], Jessica Conway[1], Christiaan Stevens[1], Jesse Mclean[2], Fred Yoon[1], Amanda Lamb[2], Muoi Tran[2], Janice Kim[2], Patrick Quinn[2]
[1]*University of Toronto, Barrie, ON*
[2]*Royal Victoria Regional Hospital, Barrie, ON*

Purpose: Stereotactic body radiotherapy (SBRT) for definitive prostate treatment is becoming increasingly utilized and as a result more community centres are implementing regional programs. Our centre developed a local program in 2020 and since inception has employed two strategies for rectal preparation taken from existing literature and larger partnering centre experience. Individual patient preparation was based on shared patient and physician decision-making. The goal of this retrospective observational study was to evaluate each in terms of initial image-guided match, treatment time and rectal size.

Materials and Methods: Rectal preparation for all patients included self-administration of a fleet enema (FE) the night prior to fiducial marker insertion and CT-simulation (done on the same day) as well as the night prior to the first treatment fraction. Subsequently patients either continued with pre-treatment FE for each fraction [Group FE] or took 17g daily of polyethylene glycol 3350 [Group PEG]. Treatments were given every other weekday over a 10-day period. Evaluation consisted of total time per treatment session (taken as the recorded time interval from the start of first cone-beam CT (CBCT) and the end of treatment) and a 'ready-to-treat' assessment based on initial image-guided CBCT match. Assessments were categorical (yes or no) based on whether a radiation therapist (RT) would accept the match to proceed to 'beam-on' according to prostate and rectal anatomy. 3 RTs trained in image-guidance for prostate SBRT evaluated all fractions, blinded to rectal preparation. Analysis is also planned for maximal rectal diameter contoured on CBCT image for each fraction.