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Results: 52 patients treated between February 2016 and August 2019 were included. Median follow up was 28.5 months and median age was 72 (range 49-90 years). 51.9% were female and 75% had a performance status of 0-1. The most common primary was colorectal (n=23; (44.2%)). 5 patients received SABR to thoracic nodes, and 8 patients had >1 lesion treated. The median BED10 dose was 121 Gy. Local control was 96% at 1 year and 84.6% at 2 years. Overall survival was 94.2% at 1 year and 89.7% at 2 years. One patient had a toxicity graded ≥ 3 , which was fatigue.

Conclusion: The findings demonstrate high levels of local control and overall survival in these patients, with low rates of toxicity. Our findings are comparable to the overall national results, and SABR to oligometastatic lesions has now been commissioned.

Reference:

[1] Palma D, et al. J Clin Oncol 2020;38(25):2830-2838.

Disclosure: No significant relationships.

142 Stereotactic ablative body radiotherapy (SABR) lung fractionations locally in the COVID-19 era and the impact on dosimetry, resources, early toxicities, and the environment

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Introduction: Reduced radiotherapy fractionations have been utilised during the Covid-19 pandemic to minimise patient risk and enable services to run with threatened resources and increased radiotherapy demand. Published recommendations for lung cancer including fractionation options for SABR (all achieving optimal BED $\alpha/10 > 100$ Gy) were rapidly implemented in our department [1,2]. All plans were reviewed at our regional SABR MDT.

Methods: Retrospective data collection of patients receiving Lung SABR at the Exeter Oncology Centre between March 2020- February 2021. EPR reviewed and VMAT radiotherapy plans evaluated using ARIA. Google maps used for travelling distance and times. Carbon dioxide emissions calculated using an online tool [3].

Results: 41 lung patients were treated. No single fractions prescribed (Fig. 1). 61% (25/41) had a reduced fractionation due to the pandemic. 64 fractions saved in total, equating to 19.2 hours

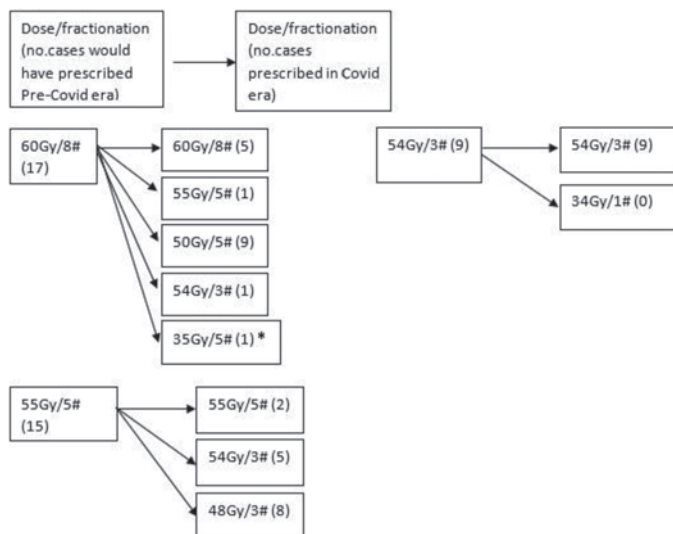


Fig. 1 (abstract 142). *Prescribed dose reduced due to proximity to OARs and previous irradiation.

linac time. Total patient travelling time and mileage saved was 76.8 hours and 3117.2 miles, respectively, which equates to 915 kg in CO₂ emissions; 458 trees need planting in a year to sequester this [4]. 40 cases had optimal PTV coverage with 1 case compromised and prescribed dose reduced. 95% (39/41) cases achieved mandatory OAR constraints with 88% (36/41) optimal OAR constraints met. No early toxicities above grade 1 were reported.

Conclusion: Our local practice has changed during the pandemic, leading to a trend of hypofractionation with reduced COVID-19 exposure risk for patients and staff, minimal compromise in dosimetry and no apparent increase in early toxicities. Additional benefits include economic and environmental savings. Longer term follow up is required for local control outcomes.

References:

[1] Faivre-Finn C, et al. Reduced Fractionation in Lung Cancer Patients Treated with Curative-intent Radiotherapy during the COVID-19 Pandemic. Clin Oncol (R Coll Radiol) 2020;32(8):481-489.

[2] SABR UK Consortium guidelines, 2019, v6.1.0.

[3] <http://www.carbon-calculator.org.uk/> [Accessed 14/03/2021]

[4] <https://assets.ctfassets.net/veghhywsw6ys/54krbctEDeX9vsp34BP5rt/84ccdd120d5fe35ce33badf14fc7f93e/Forestry-Commission-report-into-impact-of-planting-trees-on-carbon-emissions.pdf> [Accessed 14/03/2021]

Disclosure: No significant relationships.

143 Importance of the spleen as an OAR in left sided lung cancers: audit and recommendations

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Introduction: When treating left lower lobe lung tumours the spleen is not traditionally considered an organ at risk (OAR). It has been recently highlighted that the spleen is highly radiosensitive and can receive high incidental doses, which can impact splenic function and cause long-term problems for patients. Patients with an absent or dysfunctional spleen are at greater risk of late sepsis and sepsis related mortality. Doses of greater than 10Gy are associated with higher risk and patients should be considered for antibiotic prophylaxis and vaccinations [1].

Methods: A retrospective review of all patients with left sided lung cancer who were treated with radical intent in the Northern Ireland Cancer Centre in 2019 and 2020 was performed. The size of the spleen and the splenic dose in Gy was reviewed in 157 patients.

Results: The median age of the patients was 72 years (range 42 to 91) with 44% male and 56% female. Pathological subtype was 59%

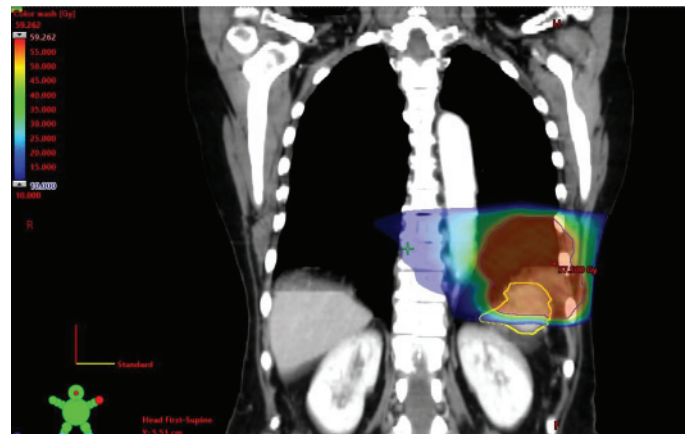


Fig. 1 (abstract 143).