73P OUTCOME OF EARLY-STAGE LUNG CANCER TREATED WITH STEREOTACTIC BODY RADIOTHERAPY (SBRT)

M. Alameddine, J. Chan, A. Pope, A. Haridass, A. Baker, S. Meara, R. Clements, A. Crabtree, H. Wong, C. Eswar
Clinical Oncology, Clatterbridge Cancer Centre NHS Foundation Trust, Wirral, UK

Aim: Stereotactic body radiation therapy (SBRT) is a technique that utilises precisely targeted radiation to a tumour while minimising radiation to adjacent normal tissue. The targeting allows treatment of small or moderate-sized tumours in either 3, 5 or 8 fractions. SBRT is increasingly being used to treat patients with medically inoperable stage I non-small cell lung cancer and has been reported to be safe and effective. The aim of this study is to review our centre’s results with SBRT.

Methods: We carried out a retrospective review of 136 patients with early-stage lung cancer who received SBRT. Prior to treatment patients were evaluated with regards to tumour stage and histology, co-morbidities, WHO performance status and lung function test. Following treatment, patients were assessed at 2 and 6 weeks, then at 3 monthly interval in the first year, 6 monthly interval in the second year then yearly up to 5 years. Outcome measures included CTCCTAE v4.0 toxicity profile and response to treatment.

Results: There were 69 male and 67 female with a mean age of 73 (range: 43-89 years). Sixty-five percent of patients had moderate to severe co-morbidities, 90% had a performance status of 2 to 3 and 23% preferred SBRT to surgery. Histology was confirmed in 58%. Staging of T1a in 24%, T1b in 45%, T2 in 25% and T3 in 6%.
One-hundred and five patients received 55Gy in 5 fractions, 23 received 60Gy in 8, 8 received 54Gy in 3. Overall the treatment was well tolerated: Grade (G)2 and G3 cough in 12 and 2 patients respectively; G2, G3 and G4 dyspnoea in 23, 8 and 1 patients respectively; G2 and G3 fatigue in 26 and 5 patients respectively; G2 chest pain in 10 patients; G2 dysphagia in 2 patients; G2 and G3 anorexia in 4 and 1 patients respectively. Fifteen patients developed progressive disease: 8 with local recurrence, and 7 with distant metastasis. Overall survival at 1, 2 and 3 years were 91%, 79% and 76% respectively. Currently 5-year survival data are pending.

Conclusions: SBRT was effective in this cohort of patients and had low toxicity profile despite pre-existing co-morbidities. Our results compare well for overall survival, local control and toxicity with the published literature.

Disclosure: All authors have declared no conflicts of interest.