

Outcomes of Hypofractionated Radiation Therapy in Locally Advanced Non-small cell Carcinoma Lung : A Single Institutional Experience

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Abstract

Introduction:Radical treatment in locally advanced non small cell carcinoma lung presents a management dilemma in patients with compromised performance status. Hypofractionated EBRT resolves this by conferring high efficacy while avoiding excessive early toxicity.

Objectives:To evaluate the efficacy and tolerance of hypofractionated radiotherapy in locally advanced lung cancer patients with compromised performance status.

Methods:From January 2019 to January 2020,62 patients were enrolled to receive hypofractionated radiotherapy with 40Gy in 16 fractions with 5 fractions per week (2.5Gy per fraction) because of compromised performance status. Follow-up was conducted at 6 weeks and 3 months for symptomatic and radiological response (RECIST Criteria 1.1) .All results were evaluated statistically.

Results: Mean age was 72.7years (\pm 6.66) with 66.12% (n=41) above 70 years and 85% in ECOG PS 3. Out of 61 patients, 20% had complete response, 75% had partial response and 3% had stable disease at 6 weeks which progressed to 33% with complete and 62% with partial response at 3 months. 85% achieved symptom palliation. Radiation pneumonitis of grade 2 and above was observed in 60.65% and 62.29% and esophagitis of grade 2 and above was observed in 40.98% and 13.11% at 6 week and 3 months respectively.

Conclusions: Hypofractionated RT confers the benefit of avoiding excessive early toxicity while maintaining high efficacy and be a finer alternative in patients with compromised performance status and/or advanced age.

Keywords: Hypofractionated radiotherapy, performance status