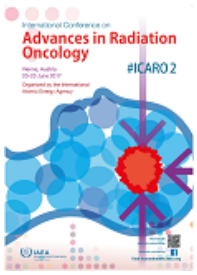

Contribution ID: **63** Type: **Poster**

Early results and toxicity profile of Glioblastoma multiforme patients treated with hypofractionated Radiotherapy along with concurrent Temozolomide.

Tuesday, 20 June 2017 15:35 (5 minutes)

Introduction:

Glioblastoma multiforme (GBM) is one of the most aggressive and most common glial tumors. Maximal safe surgical resection followed by 6 weeks of adjuvant partial brain radiation (RT) with concurrent and adjuvant temozolomide (TMZ) is the standard of care. The present study assessed the acute toxicity and tolerance of a hypofractionated schedule of concurrent RT with Temozolomide in patients with GBM.

Materials and Methods:

From September 2012 to August 2016, 20 GBM patients were treated using various hypofractionation schedules, along with concurrent oral Temozolomide at a dose of 75mg/m2. Clinical information regarding patient demographics, tumor characteristics and treatment outcomes was assembled. Acute toxicity during radiation, reflected by unplanned discontinuation of RT, reduction in RT dose or treatment breaks due to haematological toxicity were assessed.

Results:

The median age of 20 evaluated patients was 48 years (range 22-68 years). The median Karnofsky Performance Status (KPS) was 80. The schedules used were 55Gy in 25 fractions (n=10), 50Gy in 20 fractions (n=5), 56.25Gy in 25 fractions (n=3), 51.75Gy in 23 fractions(n=1) and 52.8Gy in 24 fractions(n=1). Seventeen patients (85%) were treated with Volumetric Modulated Arc Therapy (VMAT), while three (15%) were treated using Intensity Modulated Arc Therapy (IMRT). Mean PTV volume (cc) was 270cc (range 77.7cc- 438.8cc). All patients completed the planned treatment course without any treatment interruption. Total treatment duration for 6 patients (30%) was ≤ 28 days and 29-36 days for the remaining 14 patients (70%). Fourteen patients (70%) were seen to have grade I CNS toxicity, while 3 patients (15%) experienced grade II CNS toxicity. Grade II alopecia was seen in 11 patients (55%) and all patients (100%) had Grade I skin toxicity at RT conclusion. No event of Grade II or higher haematological toxicity was seen in any patient.

Conclusion:
This retrospective study suggests that hypofractionated RT along with concurrent Temozolomide is safe and well tolerated. Such schedules can be used to decrease overall treatment times, logistically benefitting the patient and healthcare resources.

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Session Classification: Tuesday afternoon - Poster Presentations - Screen2

Track Classification: Clinical Radiation Oncology