

## **Hypofractionated radiotherapy versus conventional radiotherapy in treatment of glioblastoma multiforme**

*Mohamed Abdelgawad<sup>1</sup>, Eman Ismail<sup>1</sup>, Nashwa Nawar<sup>1</sup>*

*(1) Clinical oncology department, Faculty of Medicine, Zagazig University, Egypt*

PAJO, March 2011, 4(1): 48-52

### **Abstract**

**Purpose:** This study was planned to evaluate the safety and efficacy of hypofractionated radiotherapy (HRT) in treatment of glioblastoma multiforme (GM).

**Patients and methods:** Twenty adult patients with (GM) were prospectively treated with (HRT) after surgical excision. HRT was given 3 days a week with a tumor dose of 3Gy/fraction. There were two phases of treatment, the first phase was 12 fractions, and the second phase was three fractions with smaller field size. The total dose was 50 Gy/15 fraction. The results were compared with a control group retrospectively treated with conventional radiotherapy.

**Results:** Twenty patients with GM were treated. Excisional biopsy was done in 15% of cases, 25% of cases underwent subtotal excision while 60% of cases were operated with total excision. As regard historical group 20% of cases underwent excisional biopsy, subtotal excision in 30% and total excision in 50% of cases. The study revealed that median overall survival 6.5 months and 6 months for (HRT) and conventional group respectively. The progression free survival was 6 months and 5 months for the (HRT) and conventional group respectively. Treatment was well tolerated with minimal acute toxicities.

**Conclusion:** Although HRT didn't improve overall survival or progression free survival in GM compared with conventional group but the treatment duration was reduced which may be of palliative benefit in such group of patients. Further studies could be useful to determine the optimal fraction size for GM when HRT is used as an adjuvant treatment.