

plus 60Gy with 3DCRT). In 2012, a new relapse was operated on subtotal surgery to avoid sensitive aphasia (as seen on post-surgery MRI) We compared a total dose treatment of 36 Gy, delivered in 20 sessions of 1.8 Gy per fraction with 3DCRT, IMRT and RapidArc®.

Results. 3DCRT: V95: 91%/V100:61% D95: 33.6 Gy/D100: 28.8 Gy/Brainstem: Dmaximum: 35 Gy, Dmedian: 18 Gy Visual pathways: Dmaximum: 28.2 Gy, Dmedian: 19 Gy IMRT: V95: 99.97%/V100: 91.05% D95: 35.65%/D100: 33.67%/Brainstem: Dmaximum: 35.07%, Dmedia: 19.91 Gy Visual pathway: Dmaximum: 13.72 Gy/Dmedian: 11.3 Gy RAPIDARC: V95: 99.98%/V100: 91.8% D95: 35.42 Gy/D100: 33.16 Gy/Brainstem: Dmaximum: 36.13 Gy, Dmedian: 17.4 Gy Visual pathway: Dmaximum: 12.7 Gy/Dmedian: 10.13 Gy.

Conclusions. We conclude that the three techniques analysed can achieve good cobertures of PTV, sparing the different OARs and eloquent areas.

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Malignant tumors of the central nervous system (CNS). Our experience

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Introduction. The high degree glial tumors account for 2% of neoplasms in accident. They are aggressive tumors that require multidisciplinary approach with surgery, radiotherapy and chemotherapy.

Objective. Analyzed, in a retrospective series of malignant glial tumors, treatments performed, results and acute and chronic morbidity resulting therefrom.

Material and methods. Between February 2008 and February 2012 we evaluated 109 patients with primary CNS malignancies (54% male and 46% female) with a median age of 61 years. Glioblastoma Multiforme were 82%, 11% Anaplastic Astrocytoma, 3% Anaplastic Oligoastrocytoma, 4% Anaplastic oligodendroglioma and 6% histological confirmation could not be obtained so it was based on imaging test. 94% of patients were operated: 28% by total resection, 47% by partial resection and 19% exclusive biopsy. 97% of patients received adjuvant treatment: 84% RT + QT (Stupp scheme), 8% exclusive RT, 6% RT + QT in clinical trial and 3% none. In 97% of patients we planned 3D CRT and in 3% Fractionated Stereotactic Radiotherapy. Median radical treatment dose was 60 Gy and 35 Gy in palliative treatments.

Results. Median follow-up was 252 days. Toxicity assessed by CTCAE v4.0: of the 97 patients who received adjuvant treatment with QT, 19% had thrombocytopenia \geq grade II and 24% \geq grade II leukopenia. 97% of them showed no memory impairment and 94% had no cognitive impairment. The surgical site failure occurred in 88% of patients, the remote failure occurred in 9% of patients and 3% in both.

Conclusions. The high-grade glial tumors are tumors of poor prognosis with short survival being achieved discreetly extend thanks to the combination of treatments.

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Management of patients with glioblastoma multiforme. A single institution experience

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Purpose. To evaluate the survival of patients with newly diagnosed Glioblastoma Multiforme depending on the surgery performed.

Materials and methods. From April 2002 till January 2012, 82 patients (43 male and 39 female) mean age 63.3 (range from 29 to 82) with newly diagnosed Glioblastoma Multiforme was treated in our hospital. The treatment protocol consisted of total surgery, partial surgery or biopsy only followed by external radiation therapy (6000 cGy in 30 fractions with conformal radiotherapy technique) and concurrent chemotherapy with Temozolomide (75 mg/m²/day) and adjuvant Temozolomide (TMZ) monotherapy for 6 cycles (150–200 mg/m²/5days). The median survival was evaluated depending on the type of surgery performed. Total surgery was realized in twenty-nine patients (35.4%), ten patients (12.2%) were treated by partial surgery and biopsy only was made in forty-three patients (52.2%). Survival was calculated using Kaplan–Meier and Long Rank (Mantel Cox) methods.

Results. Overall survival for our patients was 14.5 months. Two patients who were diagnosed on April 2006 and December 2010 having undergone biopsy and total surgery respectively are still alive. Twenty-eight patients were treated by total surgery followed by concurrent chemotherapy–radiotherapy (QTRT) with TMZ and adjuvant TMZ with a median survival of 18 months. Partial surgery followed by concurrent QTRT and adjuvant TMZ was realized in 10 patients with a median survival of 19.9 months. Forty-two patients were not treated by surgery and received treatment which consisted of concurrent QTRT and adjuvant TMZ with a median survival of 10.8 months. The longer survival was 68 months in a patient who was treated by total surgery followed by concurrent QTRT and adjuvant TMZ. According to the Long Rank method a significant median survival difference is observed between biopsy and partial surgery with a $p=0.016$ and Biopsy and total surgery also, with a $p=0.004$. There is no difference between total and partial surgery with a $p=0.861$.