



C0406 - MULTIPLE CRANIOTOMIES AND RESECTION OF MULTIFOCAL GLIOBLASTOMA. IS IT FEASIBLE WHILE PRESERVING FUNCTION AND GOOD PROGNOSIS?

L. Hermes González-Quarante¹, V. Agarwal², D. Madani³, H. Quach³, M. Gunawardena³ and Ch. Teo³

¹Hospital General Universitario Gregorio Marañón, Madrid, Spain. ²Mayo Clinic, Rochester, Minnesota, USA.

³Centre for Minimally Invasive Neurosurgery, Randwick, New South Wales, Australia.

Resumen

Objectives: To analyze prognostic factors and overall survival of patients with multifocal GBM. Assess a case series of patients with multifocal GBM who underwent microsurgical resection with multiple keyhole-type craniotomies at one single institution.

Methods: The authors conducted a retrospective review of patients with multifocal GBM. Demographic characteristics along with outcome and survival data were gathered and analyzed. Patients were then matched to a cohort with solitary GBM on the basis of age. Statistical analysis was done (PRISM), in order to analyze possible differences between multifocal GBM patients and their single GBM counterparts.

Results: A total of 29 multifocal and 115 single focus GBM patients were included in the study. Mean overall survival of the multifocal group was 13.6 months. Overall median survival was 12 months in the multifocal group, and 14 months in the single focus group. The single focus and multifocal groups were further subcategorized into 25-49yo, 50-64yo, and > 65yo, with median overall survival of 18 vs 14.5 months ($p = 0.0013$), 15.5 vs 10 months ($p = 0.0102$), and 11 vs 12.5 months ($p = 0.0075$), respectively. In terms of genetic analysis, EGFR was positive in 22 patients (75.9%), MGMT was positive in 20 patients (69%), and IDH1 was positive in 14 patients (48%). A greater than 90% resection was obtained in 100% of the multifocal patients, with a gross total resection (> 95% resection) achieved in 10 patients (38%). In those patients with gross total resection, median survival was 11 months.

Conclusions: Median overall survival of our multifocal group is comparable to reported rates in patients of 50 and below but actually better in groups older than 50 years old. Therefore, neurosurgical treatment for patients with multifocal glioblastoma should be considered if gross total resection is feasible.