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C-0379 - AWAKE CRANIOTOMY AND INTRAOPERATIVE LOW-FIELD MAGNETIC RESONANCE IMAGING FOR CRITICAL LANGUAGE AREA HIGH-GRADE GLIOMAS: RESULTS FROM A 5-YEARS SINGLE CENTRE EXPERIENCE

A. Ferrés Pijoan

Neurocirugía, Hospital Clínic y Provincial de Barcelona, Barcelona, Spain.

Resumen

Objectives: To report a 5-years single centre experience combining awake craniotomy (AC) and low-field intraoperative magnetic resonance imaging (iLFMRI).

Methods: The authors performed a retrospective review of 31 patients with intracranial lesions operated through awake craniotomy technique between 2015 and 2019. A subgroup of patients affected with high grade gliomas (WHO grades III and IV) located in eloquent language areas was divided into two cohorts, one operated with awake craniotomy technique and low-field intraoperative magnetic resonance imaging (Group A), and the other intervened using awake craniotomy technique alone (Group B). Extent of resection (EOR), overall survival and progression free survival (PFS) were evaluated.

Results: The mean extent of resection resulted slightly improved in the awake craniotomy associated with iLFMRI (group A) compared with awake craniotomy alone (group B) (90.55% vs. 85.70%, respectively). When comparing both groups, the p-value did not show statistical significance ($p = 0.73$). Regarding overall survival evaluation, in group A the mean and median OS was a slightly higher than in group B (16.38 and 14.98 months vs. 14.93 and 14.26 months). When comparing the mean OS between both groups, statistical analysis resulted not significant. In relation to progression-free survival, in group A the mean and median PFS resulted slightly prolonged compared with group B (9.91 and 7.44 months vs. 5.50 and 5.49 months). When comparing the mean PFS between both groups, statistical analysis resulted not significant.

Conclusions: We concluded that, even if not statistically significant, awake craniotomy associated with iLFMRI may ameliorate the EOR, OS and PFS in patients suffering from high-grade gliomas in critical language areas. These preliminary findings may pave the way for further investigations, hence larger series are needed to confirm the results presented in the present contribution.