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## C0057 - INTRAOPERATIVE EVALUATION OF MEMORY: ¿IS IT POSSIBLE TO REDUCE THE RISK OF LONG TERM WORKING MEMORY DEFICITS?

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### Resumen

**Objectives:** The aim of the present study is to evaluate if a new intraoperative memory test reduces the rate of long term memory impairment in patients with gliomas within eloquent areas operated with intraoperative electrical stimulation awake mapping (IES).

**Methods:** Cohort of 29 subjects with gliomas within eloquent areas operated awake with IES and picture naming task (group A). Cohort of 26 subjects with gliomas within eloquent areas operated awake with IES and a memory task (group B). The memory task consisted in a combination of picture naming, reading (interference task) and recall. Neuropsychological evaluation was performed before surgery and 6 months after surgery. Working memory test included Rey auditory verbal learning test, block tapping test and WAIS-III.

**Results:** The short term Rey Auditory Verbal Learning Test worsened in 16 patients (55.2%) in group A, and in 8 patients in group B (30.8%). The long term Rey Auditory Verbal Learning Test worsened in 15 patients (51.7%) in group A, and in 6 patients in group B (23.1%). The differences identified between groups were statistically significant ( $p < 0.05$ ).

**Conclusions:** The present results emphasize the limitation of picture naming task to evaluate and preserve working memory function. The working memory task presented here significantly reduced the risk of long term working memory deficits after surgery.