

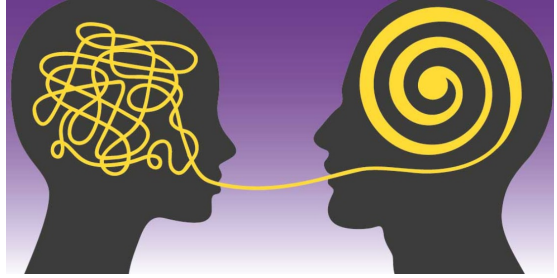
Eligibility prediction to awake craniotomy with a psychological tool: Besta 2022 experience

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BACKGROUND

Awake craniotomy is the gold standard for neurosurgical interventions that require tissue resection close to “eloquent” brain regions, which are essential for language functions. The clinical benefits of awake craniotomy and intraoperative brain mapping highly depend on the quality of intraoperative emergence and speech interaction with the patient during the intervention. This means that the quality of anaesthetic management and the participation of the neuropsychologist responsible for intraoperative testing are key factors for a successful awake craniotomy. A psychological evaluation before surgery is mandatory to explore patient’s psychological characteristics and screen those who can develop excessive stress during the procedure. Santini et al. investigated correlations between the preoperative psychological evaluation of the candidates for awake craniotomy with Pain Anxiety Symptoms Scale (PASS-20) and the intraoperative behaviour, concluding that fear of pain and anxiety can be considered warning signs for minor failure.



RESULTS & CONCLUSIONS

We found a different PASS-20 score in the eligible patients and the patients rejected for psychological reasons, respectively lower in the first group and higher in the second one, with a statistical significance (R^2 0,447 and Pvalue 0,0125), demonstrating it is a good test to predict surgical eligibility.

Further studies should focus on a new complex preoperative score including anaesthesiologic and psychologic evaluation.

METHODS

In our study we enrolled 23 patients presenting close anatomical proximity between the lesion and eloquent cortex, 10 of which were submitted to awake craniotomy and the remaining 13 were rejected. The anaesthesiologic management consisted in locoregional anaesthesia provided with scalp block, using 0.75% levobupivacaine, in order to prevent pain during skin incision, and MAC (monitored anaesthesia care) with dexmedetomidine that implies spontaneous ventilation and the patient’s cooperation at all phases of the procedure. No anaesthetic rescue manoeuvres were performed.

