

27th International conference on

Neurology and Cognitive Neuroscience

October 18-19, 2018 | Warsaw, Poland

Pitfalls and advances in awake craniotomy for gliomas

Marcos Maldaun, Juliana Ohy, Paulo Aguiar, Maira Velho and Silvia Verst

¹Hospital Sírio Libanês, USA²Centro Oncológico Antonio Erminio de Moraes, Brazil

Maximal safe resection is considered stand of care surgical treatment for gliomas. To perform radical and safe resection, we noticed limitations of preoperative MRI valuation, mainly DTI and functional MRI to precise the relationship between tumor and eloquent brain areas, especially for speech areas and connections. In our previous publication sensitivity for functional MRI compared with intra-operative mapping to identify speech areas were 60% for Broca and 18% for Wernick area. Language is something essential for quality of life and affects different functions and cortical and subcortical brain areas and connections. This complex network is very important for patients with gliomas and we discuss options for proper and practical neurophysiological valuation pre, intra and postoperative. We also discuss pitfalls of awake craniotomy beyond traditional testing, showing our results of cortical and subcortical stimulation using monopolar and suction probe as well additional individual language testing (78 patients) compared with traditional testing (158 patients). We conclude that individual intra-operative testing turns your surgery safer. We also present our experience operating patients awake (safe resection) using the next room intra-operative MRI (maximize resection) presenting our results in 38 patients and redefining the concept of maximal safe resection.

marcosmaldaun@gmail.com