

## Simplified awake Craniotomy for eloquent Cortex Brain Tumor removal

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### Abstract

**Introduction:** Surgical treatment of intrinsic brain tumor in the eloquent areas like speech/motor is always a risk factor for major deficit. Awake craniotomy is a useful surgical approach to identify and preserve functional areas in brain and maximizes tumor removal. Due to deficient infrastructure and financial constraints the procedure is modified and simplified.

**Methods:** Retrospective analysis was done with selected patients admitted from July 2013 to August, 2018 for awake craniotomy. The presentation was seizure and/ progressive neurological deficit. Long acting local anaesthesia was used for scalp block. Anaesthesia was performed in a state of sleep-awake-sleep pattern, keeping patients fully awake during tumor removal. The brain eloquent functions were closely monitored clinically during surgery. However unlike routine, brain mapping or neuronavigation technique was not performed here.

**Results:** A total of 52 patients were included in the study of age between 24-55 years (mean 36). 34 (65.38%) were females and 18 ( 34.61%) males. 30 (57.69%) patients presented with predominantly seizure disorders and rest with progressive neurological deficit. 44 (84.61%) patients were discharged on second post-operative day. Complications was encountered in 6 (11.53%) patients who developed brain swelling intraoperative and 5 (9.61%) deteriorated neurologically in the immediate post-operative period however managed successfully. 7 (13.46%) patients require ICU/ HDU care for different reasons. There was no mortality during the hospital stay. Histopathology revealed 38 (73.07%) patients low grade glioma, 11 (21.15%) high grade glioma and 3 (5.76%) metastases.

**Conclusion:** Awake Craniotomy is a safe surgical management for intrinsic brain tumors in the eloquent cortex although surgery and anesthesia with a limited resources is a challenge. It offers great advantage towards disease outcome.

### Biography

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