

Awake Craniotomy the future of Neurosurgery

Debabrata Mukhopadhyay and Asha Bakshi

Kailash Health care, India

Introduction: Surgical treatment of intrinsic brain tumour in the eloquent areas like speech or 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 tumour removal. The other advantages are very short hospital stay, bypassing general anaesthesia, therefore lesser risks and cost effective. These advantages of awake craniotomy is encouraging to operate on all intraxial supratentorial tumours irrespective of eloquent areas.

Methods: Retrospective analysis was done with selected patients admitted from July 2011 to February 2018 for awake craniotomy. Patient presentations, co-morbid conditions, tumour locations and the histopathological features were documented. 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 tumour removal. The brain eloquent functions were closely monitored whenever tumours were in eloquent areas of brain clinically during surgery. However, unlike routine, brain mapping was not performed due to lack of resources.

Results: A total of 55 patients were included in the study of age between 24-55 years (mean 36). 31 (56.36 %) were females and 24(43.63%) males.31(56.36%) patients presented with predominantly seizure disorders and rest with progressive neurological deficit. 47 (85.45%) patients were discharged on second postoperative day. Complications was encountered in 6 (10.90 %) patients who developed brain swelling intraoperatively and 8(14.54%) deteriorated neurologically in the immediate postoperative period however managed successfully. Patients with prior neurological deficit only deteriorated. No complications were encountered who was neurologically intact. 8(14.28%) patients require ICU/ HDU care for different reasons. There was no mortality during the hospital stay. Histopathology revealed 39 (70.90%) patients low grade glioma, 13 (23.63%) high grade glioma and 3 (5.45%) metastases.

Conclusion: Awake Craniotomy is a safe surgical management for intrinsic brain tumours irrespective of eloquent area of brain although surgery and anaesthesia is a challenge. It offers great advantage towards disease outcome.

e: neurodoc07@gmail.com



Notes: