

LETTER TO EDITOR

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Awake Craniotomy during Menstruation: Is it Advisable?

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Full Text

Sir,

Awake craniotomy is usually performed for the lesions located near the eloquent areas of the brain, cases in which surgery under general anesthesia might result in permanent neurological damage. The major challenge during awake craniotomy is to obtain an awake yet calm, comfortable, and cooperative patient with the use of nerve blocks and judicious administration of sedatives and analgesics to allow intraoperative language/motor mapping so that damage to the functional areas can be prevented. With the introduction of easily titratable, short-acting sedatives/analgesics, the practice of awake craniotomy has increased significantly over the last few decades, leading to the unraveling of some newer concerns which have not yet been reported.

A 26-year-old female presented with headache and dysphasia of one month duration. Magnetic resonance imaging of brain demonstrated a left frontal opercular glioma and she was posted for awake craniotomy and tumor excision. In the pre-anesthetic checkup a day before surgery, she was irritable and having mild abdominal cramps because she was in day two of her menstrual cycle. She did not report any other complaints regarding her menstruation. She had no other neurological deficits or any other comorbidities. To proceed with the planned procedure, this situation ran the potential risk of a complicated/difficult intraoperative course even endangering successful conduct of the procedure. Thus, we decided to postpone the procedure till the waning of her menstruation in view of these temporary issues. We obtained written informed consent from the patient to report this issue for publication.

According to the current literature, active menstruation per se is not a contraindication to elective surgery under anesthesia.[1] However, we believe that this may not hold true for awake craniotomy wherein successful conduct of the procedure largely depends on the mental status and cooperation of the patient. Hormonal, physical, and psychological fluctuations occurring perimenstrually might hamper active cooperation of the patient intraoperatively. Moreover, perception of pain also increases during the perimenstrual period owing to modulation

of the pain pathways.[2] Any restlessness and irritability during the intraoperative period can increase intracranial pressure in the presence of an intracranial space-occupying lesion. In addition, the frequency of seizure also increases in the perimenstrual period[3] and might further threaten successful conduct of awake craniotomy.[4] Moreover, fluctuations in the symptom severity of several diseases, e.g., glaucoma, bipolar disorder, and allergies during menstruation have been described.[3]

It is likely that women of child-bearing age on their own might not reveal the presence of active menstruation preoperatively. As clinicians, it is imperative that we ask specifically about this before awake craniotomy. Patients, their relatives, and medical personnel need to understand that symptomatic menstruation is not an ideal situation for awake craniotomy. A calculation of risk-benefit ratio is thus advisable.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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