

Letter to the Editor

Rare case of meningeal tuberculoma mimicking meningioma in term pregnancy and its management

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Sir,

Brain tumors during pregnancy are rare. Meningiomas comprise most of them possibly due to the role of excess estrogen during pregnancy causing their growth. We present an interesting case of dural or meningeal tuberculoma resembling a meningioma both radiologically and on intra-operative findings. Literature shows few cases undergoing same stage caesarean section and excision of brain lesion.^[4,7]

A 31-year-old woman, gravida 3 para 1 with one previous abortion, at 37 weeks and 4 days of gestation, presented in emergency hours with complaints of blurring of vision for 15 days and headache with vomiting for the past 12 h. She had irregular antenatal check-ups. Her first pregnancy was 5 years back and was a full-term normal institutional delivery. Her second pregnancy 2 years back resulted in a medication abortion at 6 weeks, and this was her third pregnancy. She had availed of three antenatal check-ups in this pregnancy. She was treated at her local hospital for vomiting in pregnancy for the past 12 h with intravenous fluids and antacids. Her

previous menstrual cycles were regular with average flow. Her past and family history were not significant. On examination, she was conscious, oriented with Glasgow Coma Scale (GCS) of 15. Her vitals were stable. Thyroid, respiratory, and cardiovascular system examinations were normal. On abdominal examination, uterus was term in size, relaxed, with a live singleton fetus in longitudinal lie and cephalic presentation, vertex being mobile. Patient was managed conservatively with intravenous fluids, antiemetics, and proton pump inhibitor. However, as there was no symptomatic improvement for blurring of vision, fundoscopy was done which showed mild disc edema. Magnetic resonance imaging (MRI) of brain was done, which showed a T2 heterogeneous and FLAIR hyperintense lesion of size 4.0 × 3.7 × 3.5 cm in the right occipital lobe, with gross edema in the occipito-parietal lobe with mass effect and contralateral midline shift by 11.7 mm [Figure 1]. She was planned for elective

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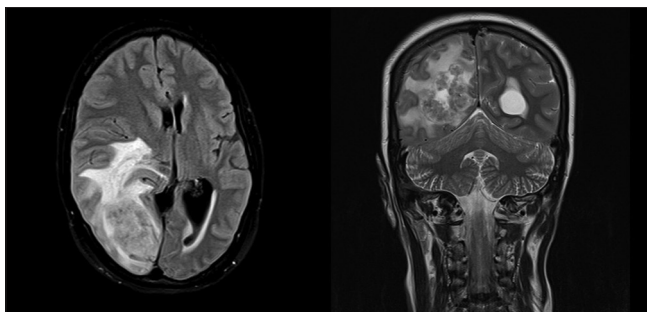


Figure 1: T2 image showing a well-circumscribed, extra-axial lesion attached to the falx in right occipital region with gross perilesional edema and midline shift

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caesarean section with craniotomy and tumor excision in a single sitting. Caesarean section was done and a female baby weighing 2.6 kg was delivered with good Apgar scores. Patient was turned to prone position and a right parieto-occipital craniotomy was done; dura was opened and a greyish white extra-axial tumor attached to falx was excised completely. Post-operatively, breast feeding was started. Histopathology showed multiple necrotizing epithelioid cell granulomas with Langerhans and foreign body type of giant cells [Figure 2a-c], with special stain

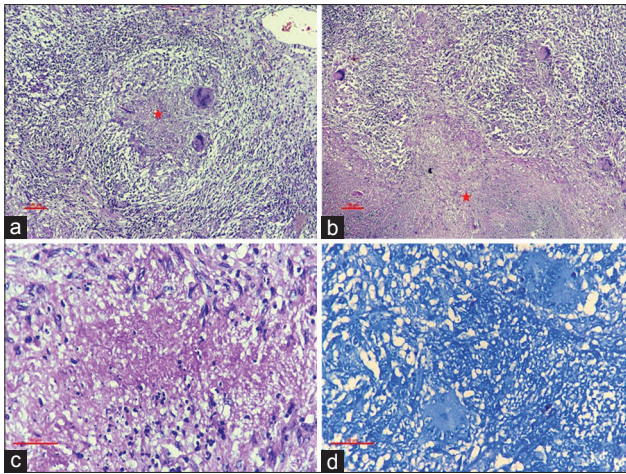


Figure 2: Histopathology: (a and b) Epithelioid cell granulomas with central areas of necrosis (star). Scattered foreign body and Langerhans giant cells are also seen. (c) Area of caseous necrosis surrounded by epithelioid histiocytes. (d) Ziehl-Neelsen staining positive for acid-fast bacilli

for acid-fast bacilli being positive [Figure 2d] suggestive of meningeal tuberculoma. No fungal elements or tumor cells were identified. Final diagnosis of meningeal tuberculoma was made. Patient was started on antitubercular therapy. The neonate was evaluated, and gastric aspirate and chest X-ray were normal. Neonate was started on INH prophylaxis. Currently, both mother and baby are 9 months post-delivery and are asymptomatic. Recent MRI shows complete removal of the lesion with no recurrence [Figure 3].

Neurosurgical disorders during pregnancy are rare and pose risk to two lives and create special diagnostic and therapeutic challenges. Tumors, intracranial hemorrhage due to arteriovenous malformations (AVMs), aneurysms, and intracranial bleeding due to eclampsia, hydrocephalus, and trauma are the most common lesions seen during pregnancy period.^[2,3] Intracranial lesions presenting during pregnancy should be tried to be managed conservatively when the lesions seem to be benign like meningioma. However, in grossly increased intracranial pressure threatening the life of the patient or vision like in our case it can be operated to remove the intracranial cause. Such cases presenting in term can be treated by same setting caesarean section followed by excision of intracranial lesion. With advancement in anaesthesia and proper meticulous care, this is safe and possible in all such cases,^[2] which is being exemplified in our case. However, they should be handled with caution as the stress of surgery and anaesthesia may induce

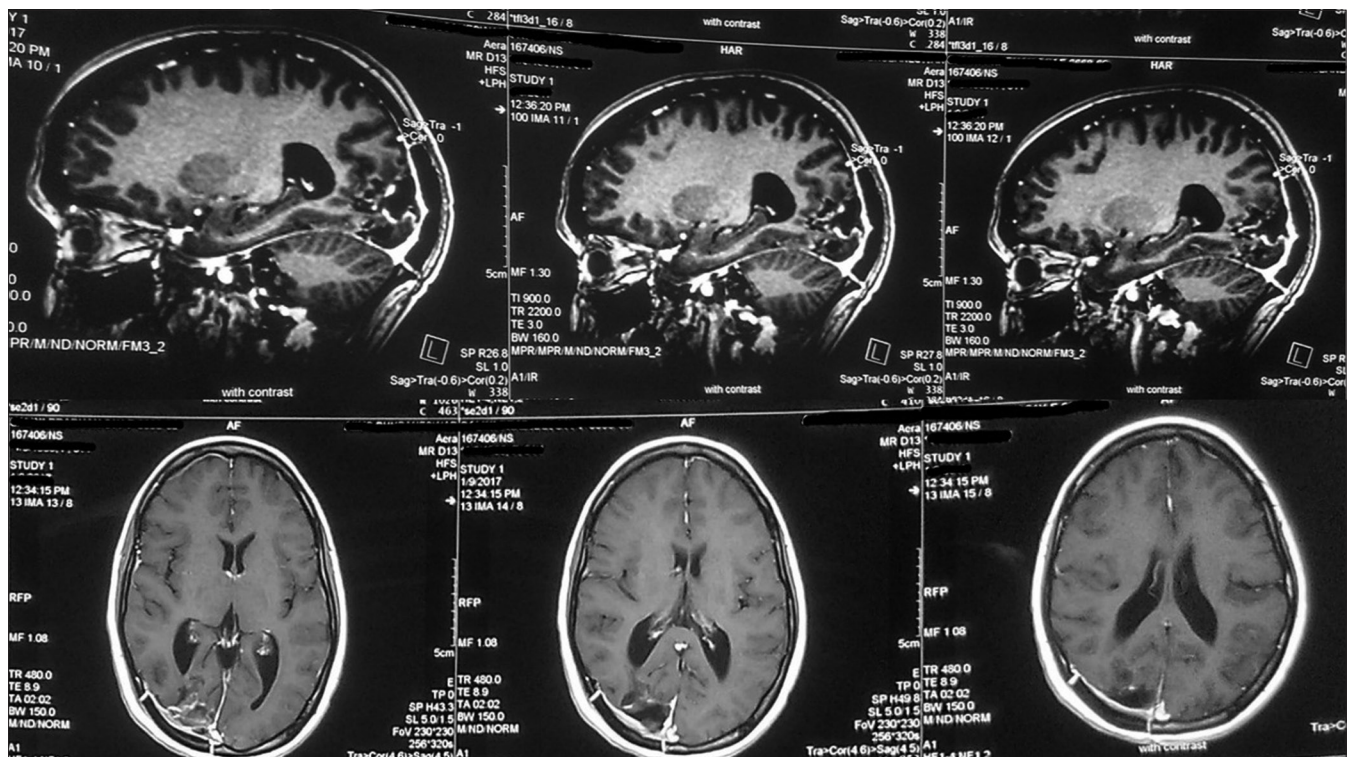


Figure 3: Postoperative (post 9 months) MRI (contrast) showing complete excision of the lesion with no recurrence

fetal or maternal compromise. Intracranial tuberculoma could be intraparenchymal or with dural involvement in the form of pachymeningitis. The later form is rare and could resemble meningioma due its well-circumscribed, extra-axial location and attachment to dura. Few cases have been reported in literature.^[1,5,6] But such presentation in term pregnancy and its management by single setting caesarean section followed by complete excision of tuberculoma has not been reported in literature till now.

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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Conflicts of interest

There are no conflicts of interest.

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