

Endometrial sarcoma metastatic in the brain with left atrial thrombus for craniotomy - A case study

Dear Editor,

Brain metastases from endometrial stromal sarcoma (ESS) have rarely been reported in the literature.^[1] Here, we described a case of ESS where brain metastases necessitated an emergency craniotomy, and a left atrial thrombus (LAT) (55 × 41 × 26 mm) was accidentally discovered preoperatively.

A 55-year-old woman, a known case of ESS on oncology follow-up since 2017 after staging laparotomy and chemotherapy, was admitted to the hospital with complaints of headache and vomiting of 2 months duration and poor responsiveness 3 days before reporting for current hospitalisation. Magnetic resonance imaging (MRI) revealed a 5.6 × 3.7 × 4.7 cm lesion in the left parieto-occipital lobes with a 5.5-mm midline shift [Figure 1a]. Given the patient's abrupt deterioration, an emergency decompression was scheduled. On perusing the records, it was noted that echocardiography done 2 months back had revealed a left atrial tumour thrombus for which the patient was placed on conservative management with oral anticoagulant (apixaban).

Due to the abrupt deterioration in the sensorium and the requirement for emergency decompression, a thorough cardiology consult was not possible. Instead, an on-table transthoracic echocardiogram (TTE) was performed to evaluate the status of LAT after attaching standard monitors. The LAT was seen advancing into the left ventricle with each cardiac cycle [Figure 1b]. Cardiac operation theatre (OT) was alerted for any adverse need for cardiopulmonary bypass. Automatic electric defibrillator pads were attached. Before induction, two units of fresh frozen plasma (FFP) were transfused along with additional blood components kept ready for surgery. After preoxygenation, anaesthesia was induced with intravenous fentanyl 2 µg/kg and etomidate 0.3 mg/kg. An 8.0-mm internal diameter (ID) cuffed endotracheal tube was inserted; anaesthesia was maintained with air-oxygen (50%:50%), sevoflurane (1%–1.5%) and fentanyl intravenous infusion with intermittent

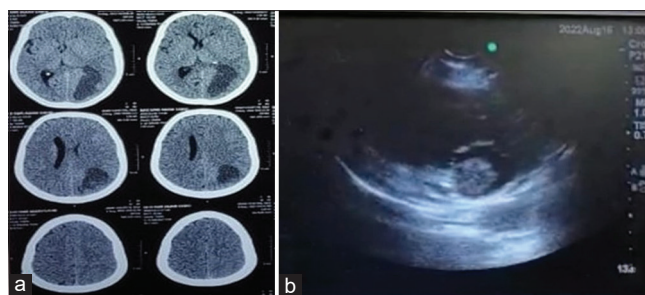


Figure 1: (a) Magnetic resonance imaging showing metastatic lesion in the left parieto-occipital lobes. (b) Echocardiographic finding of the left atrial thrombus

doses of vecuronium. The right subclavian vein and the left radial artery were cannulated and transduced. Intraoperative continuous chest TTE was continued to check for the LAT, whether impinging on the mitral valve or blocking the aortic valve. Parieto-occipital craniotomy and excision of the tumour were performed. The patient remained haemodynamically stable during the procedure and was safely extubated after assessing the sensorium and the absence of any new neurological deficit. The patient was shifted to the intensive care unit and then to the ward on the third postoperative day. The cardiology team started the patient on low-molecular-weight heparin (LMWH) 48 h later. Histological examination of the tumour revealed ESS.

ESS spreads throughout the lymph nodes and venous system but rarely involves the heart. Although it is thought to be a neurophobic tumour, brain metastasis can sometimes be uncommon, and perioperative management becomes more challenging in the presence of concurrent LAT.^[2] Furthermore, considering the multiple catastrophic complications that can occur, including embolisation during the conduct of anaesthesia, the potential for a sudden obstruction of the mitral valve, the presence of arrhythmias, pulmonary hypertension, significant haemodynamic instability and the risks related to surgery and associated anticoagulant bleeding, the anaesthetic management of such a case is particularly challenging.^[3]

Even though the gold standard for detecting LAT in individuals with suspected cardioembolic is transoesophageal echocardiography (TEE), we used TTE instead of TEE due to the emergency nature of the surgery and lack of availability of TEE. Moreover, TTE helped with fluid resuscitation and cardiac and volume status evaluation during surgery.

In conclusion, anaesthesiologists should be vigilant about the likelihood of LAT in ESS cases due to a hypercoagulable state of malignancy. Managing anaesthesia in the presence of a mobile LAT can be fraught with catastrophic complications, and TTE may be a helpful adjunct in perioperative anaesthetic management.

Declaration of patient consent

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

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Conflicts of interest

There are no conflicts of interest.

**Bhavna Hooda, Amit Atwal, Shalendra Singh¹,
Krishna K. Mylavaram**

Department of Anaesthesiology and Critical Care, R & R Hospital, New Delhi, ¹Department of Anaesthesiology and Critical Care, Command Hospital (NC), Udhampur, Jammu and Kashmir, India

Address for correspondence:

Prof. Shalendra Singh,
Department of Anaesthesiologist and Critical Care, Command Hospital (NC), Udhampur - 182 101, Jammu and Kashmir, India.
E-mail: drsinghafmc@gmail.com

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