Sir,
A 65-year-old female patient, resident of a rural area in Western Uttar Pradesh in India, presented to the neurology outpatient clinic with the complaint of swelling over the left side of the scalp. The swelling was first noticed 15 years back which gradually increased in size since then. There was a history of trauma by the horn of a bull in the same region of the scalp 25 years back for which the patient did not undergo any imaging investigation or treatment. There was no history of pain over the swelling, fever, seizures, loss of consciousness, and generalized or focal neurological deficits. On local examination, the swelling was present over the left preauricular and temporal scalp region measuring approximately 7 cm × 8 cm × 2 cm [Figure 1]. The swelling was soft, compressible, and nonpulsatile, with absence of tenderness, visible impulse on coughing, bruise, warmth, and redness of skin over the swelling. The swelling was not fixed to the underlying skull and the overlying skin.

A history of hypertension, diabetes, tuberculosis, and any other systemic illness was negative. Systemic examination was unremarkable. Higher mental functions, sensory, motor, and cranial nerve examinations were normal. Her laboratory examinations were within normal range. Workup for common metastatic lesions from breast, thyroid, kidney, and lungs was negative.

Radiological examination of the swelling was initiated with conventional radiography followed by noncontrast computed tomography scan (NCCT) and magnetic resonance imaging [Figures 2 and 3].

Remote history of trauma followed by the onset of gradually progressive swelling in the scalp which on radiological evaluation suggests typical features of leptomeningeal cyst led to the diagnosis of growing skull fracture (GSF). The patient was offered surgical treatment which she refused.

GSF also known as leptomeningeal cyst and craniocerebral erosion is a very rare complication following head trauma in children < 3 years of age. Pathogenesis of GSF is same in adults and children and follows a series of events initiated by fracture skull lacerating the underlying dura which is often tightly attached to the overlying skull in children. Pia-arachnoid membranes herniate through the torn dura and fracture line which then cause the fracture line enlargement as a result of constant cerebrospinal fluid pulsation. Progressive enlargement of bony gap is then seen.\(^1\)

Naim-Ur-Rahman et al. classified the GSF into three categories on the basis of etiology, NCCT appearance, and surgical management required as follows:\(^2\)

- **Type I:** Presence of leptomeningeal cyst in the skull defect
- **Type II:** Presence of underlying gliotic and damaged brain
- **Type III:** Extension of porencephalic cyst through the skull defect in the subgaleal space.

GSFs are rare in adults. There are few case reports describing the presence of GSF in adults.\(^3,4\)

![Clinical photograph of the patient showing fullness and swelling in the left temporal region](image1.png)

**Figure 1:** Clinical photograph of the patient showing fullness and swelling in the left temporal region

![Noncontrast computed tomography of head showing large calvarial defect noted in the left parietal bone and part of posterosuperior temporal bone with thinned out and eroded margins. There is evidence of herniation of a large area of encephalomalic tissue (having density equal to cerebrospinal fluid) through the defect into the subgaleal region of scalp and having internal communication with the left lateral ventricle. Moderate communicating ventriculomegaly is also noted](image2.png)

**Figure 2:** Noncontrast computed tomography of head showing large calvarial defect noted in the left parietal bone and part of posterosuperior temporal bone with thinned out and eroded margins. There is evidence of herniation of a large area of encephalomalic tissue (having density equal to cerebrospinal fluid) through the defect into the subgaleal region of scalp and having internal communication with the left lateral ventricle. Moderate communicating ventriculomegaly is also noted
This case highlights the need to consider GSF in the differential diagnosis of adults presenting with scalp masses. Possible differentials include benign and malignant scalp masses such as inflammatory lesions involving skin and appendage, mesenchymal tumors, metastatic tumors, and other tumor-like lesions.

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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