of flame burn over face and scalp around 15 years back when he was a kid. He had been treated with dressings at home by his local medical practitioner. The wound had been closed by scarring during a period of months. The area had remained unchanged until last 2 months, had developed an ulceration over the scar tissue, and there was a serosanguinous discharge since then. Due to personal neglect and a low socioeconomic status, no treatment was taken. Since last 15 days, he had developed a purulent discharge; over last 4-5 days, he had developed a very soft swelling over the scalp which was gradually increasing in size. Neurologically, the patient was normal previously but was now bedridden with increased spasticity in both upper and lower limbs with no power in the lower limbs and 2/5 power in both upper limbs.

On examination, the swelling was very soft, which was probably a brain tissue protruding out through the scalp and the bony defect. Computed tomography (CT) scan confirmed that there was a bony defect present of size about 8 × 6 cm and the brain matter was fungating out. There were areas of intra cerebral hematomas inside the fungating brain tissue [Figure 2a-d]. CT angiography was also done to know about the major blood vessels. Superior sagittal sinus going through the defect was already thrombosed [Figure 2c].

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The patient was subjected to surgery for resection of the protruding necrotic brain matter with freshening of the defect with duraplasty using fascia lata of right thigh with forehead transposition flap. The forehead donor site was covered with the split skin graft harvested from the left thigh [Figure 3a-c].

Histopathology of the specimen taken from the margins of the defect revealed well-differentiated squamous cell carcinoma, while that from the excised brain tissue showed marked edema, dense infiltration with acute and chronic inflammatory cells, granulation tissue, and abscess formation. At one focus, there was an area of well-differentiated metastatic squamous cell carcinoma.

Postoperatively [Figure 4], initially the patient recovered well, but later he dramatically deteriorated and expired within 10 days.

**Discussion**

Malignant degeneration of burn scars has been reported as early as in the 1st century by Celsus.[4] Today, the term “Marjolin’s ulcer” is generally used for squamous cell carcinoma arising in posttraumatic scars. However, squamous cell carcinoma has recently been reported to arise from other skin lesions also such as Fournier’s gangrene.[5] There have been some case reports of burn scar carcinomas of the scalp,[6-8] a localization not as common as the lower extremity but still making up approximately 14% of burn scar carcinomas.[9]

Two variants of Marjolin’s ulcer have been described: An acute form in which the cancer occurs within 1 year of the injury and a chronic form in which malignant changes are more than 1 year from the date of injury.[10]

Approximately 2% of burn scars undergo malignant transformation. Sites that remain ungrafted or where grafts have failed are more vulnerable for developing malignancy. These grafts often develop chronic and recurrent ulcerations before undergoing malignant transformation.
The tissue progresses through the stages of atrophy, pseudoepitheliomatous hyperplasia, and finally carcinoma. Surgical excision is the recommended modality of treatment.

In conclusion, appropriate and expeditious initial wound management of scar ulcers will facilitate wound healing and minimize the risks of malignant transformation.

As the scalp is well vascularized, in this location, there is a lower incidence of Marjolin’s ulcer when compared to the other sites. Invasion of the skull, dura mater, and the brain is quite exceptional, and has only been reported in a limited number of cases.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

References