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SNI: Unique Case Observations

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Image Report

Bumpy head, unusual gliosarcoma metastasis

Fayçal Lakhdar, Mohammed Benzagmout, Khalid Chakour, Mohammed El Faiz Chaoui

Department of Neurosurgery, Hassan II Hospital, University Medical School Sidi Mohamed Ben Abdellah, Fez, Morocco.

E-mail: *Fayçal Lakhdar - lakhdar.faycal@gmail.com; Mohammed Benzagmout - bezagmout@hotmail.fr; Khalid chakour - chakour.khalid@gmail.com; Mohammed el faiz chaoui - fmchaoui@yahoo.fr

***Corresponding author:**
Fayçal Lakhdar,
Department of Neurosurgery,
Hassan II Hospital, University
Medical School Sidi Mohamed
Ben Abdellah, Fez, Morocco.

lakhdar.faycal@gmail.com

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A 53-year-old man with no previous cancer history or radiation therapy presented to our emergency department with a 3-month history of headaches, vomiting, and multiple focal seizures. Physical examination revealed Glasgow Coma Scale 12, a Frisen Scale Grade II papilledema bilaterally and right hemiplegia. Brain MRI demonstrated a heterogeneous mass within the left frontal lobe, irregular rim of peripheral marginal enhancement, and central necrotic area with marked vasogenic edema causing a small uncal herniation [Figure 1]. Gross total resection of a firm pseudoencapsulated cerebral lesion was performed and the patient had recovered well from surgery. The microscopic features with the immunohistochemical profile confirmed the diagnosis of gliosarcoma (GS), and adjuvant treatments were carried out. Three weeks following surgery, radiotherapy was given in 30 fractions 5 times a week, to a total dose of 60 Gy and concomitant chemotherapy consisting of temozolomide (75 mg/m2/body surface/d) was initiated.

Two months later, clinical examination displayed five subcutaneous mass, firm, and unmovable at the left temple and frontoparietal scalp [Figure 2]. Theses lesions suggested frontotemporal and parietal GS metastasis. Therefore, an additional contrast-enhanced 18F-FDG PET/CT for oncological staging was carried out, with no evidence of extracranial lesions. The patient underwent surgery to resect the tumor and metastasis of the scalp. Final histopathological diagnosis was GS with positivity for both glial fibrillary acidic protein and nestin. Two months following surgery, he presented with general clinical deterioration and died a few weeks later, 7 months after initial diagnosis. To the best of our knowledge, there are <20 reported cases of GSs with extracranial metastases, and the present case might be only the fourth to report scalp metastasis, also the first without any others localizations sites.[1-3,5] GS is a rare and aggressive brain tumor with a poor prognosis and tendency for extraneural metastasis. The incidence of metastatic GSs can reach 11% with a greater propensity for hematogenous dissemination.[4] Regarding the therapeutic approach to GS, the ideal treatment remains unknown and further studies will be needed to establish well-defined specific protocols. Even with treatment including tumor resection, adjuvant radiotherapy, and chemotherapy, the survival times of patients with metastasis GS are short and range from 6 to 14.8 months.[1,5]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

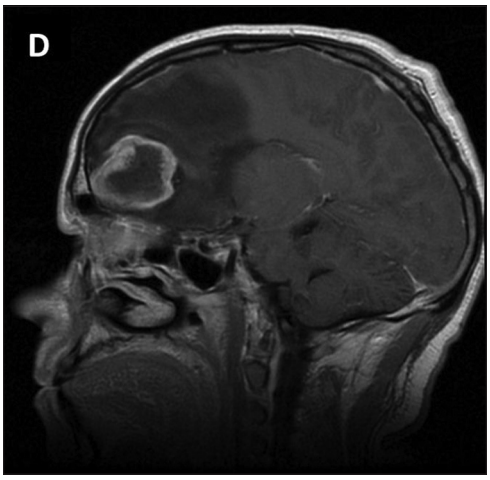

Figure 1: Cerebral MRI weighted T2, demonstrating a heterogeneous mass within the left frontal lobe, irregular rim of peripheral marginal enhancement, and central necrotic area with marked vasogenic edema causing a small uncal herniation.

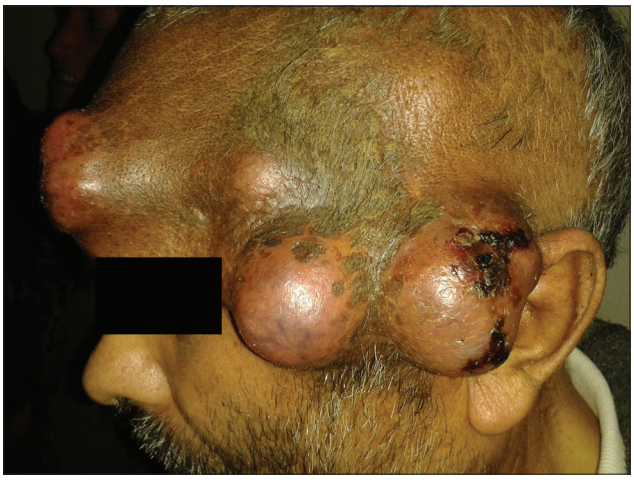

Figure 2: Subcutaneous gliosarcoma metastasis, firm, and unmovable at the left temple and frontoparietal scalp.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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