

Case Report

Postoperative cerebral myiasis: A rare cause of wound dehiscence in developing countries

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Abstract**Background:** Cerebral myiasis is a rare parasitic disease, especially in postoperative neurological surgery.**Case Description:** We report a case of postoperative myiasis in a patient who underwent a craniotomy for resection of metastatic melanoma, evolving with wound dehiscence due to myiasis in the operative wound.**Conclusion:** Myiasis infestation should be a differential diagnosis of surgical wound dehiscence, particularly when the classic signs of inflammation are not present and computed tomography of the brain shows signs suggestive of this disease entity.**Key Words:** Myiasis, neurosurgical procedure, postoperative periodVideo Available on:
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INTRODUCTION

Myiasis is an infection caused by a fly larva, usually occurring in tropical and subtropical areas. There are many ways for flies to transmit their larvae to human beings. Some flies attach their eggs on mosquitoes and wait for them to bite a human host, and then the larvae enter through these lesions.^[1]

Other flies' larvae burrow into the skin. They can enter the skin through people's bare feet when they walk through soil containing fly eggs or attach themselves to people's clothes and then burrow into their skin. Some flies put their larvae on or near a wound or sore, depositing eggs in sloughing-off dead tissue.^[1]

Human cerebral myiasis is an exceedingly rare condition and is almost never encountered by physicians.^[2,5] There are no reports of post-craniotomy brain myiasis in the literature, even in developing countries.

Jan *et al.* described intranasal myiasis after a transnasal skull base surgery.^[4] Terterov *et al.* mentioned that only eight cases of cerebral myiasis in humans have been reported worldwide and just one in the United States until their publication in 2010.^[5]

CASE DESCRIPTION

A 36-year-old patient was taken into the emergency room with an acute decreased level of consciousness. On clinical examination, he was comatose, had 8 points on the Glasgow Coma Scale, no apparent focal deficit, and right inguinal lymphadenomegaly. His wife reported that he had been subjected to the treatment of cutaneous melanoma at another hospital for approximately 1 year.

Emergency brain computed tomography (CT) showed the left frontal tumor lesion with significant mass effect [Figure 1a] that was operated by craniectomy immediately [Figure 1b]. Because of the clinical stage of comatose on admission and evidence of cerebral edema

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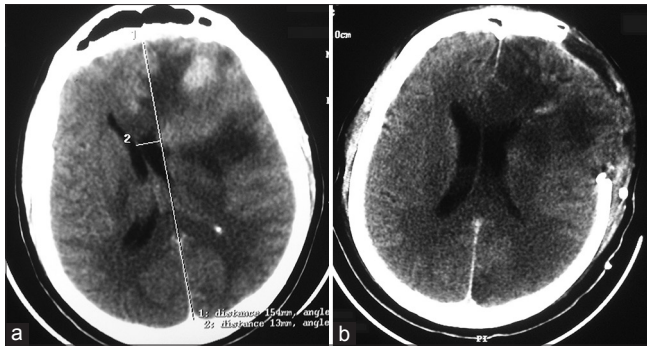


Figure 1: (a) Computed tomography (CT) of the skull showing cerebral mass, with marked mass effect. (b) CT showing tumor resection



Figure 2: Dehiscence, without secretion, hyperthermia or important hyperemia

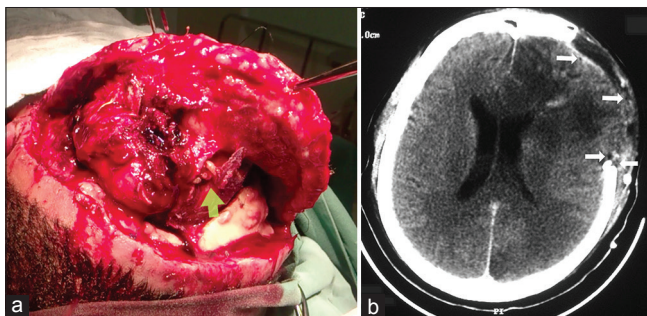


Figure 3: (a) Surgical reapproach showing the presence of larvae on the surgical bed (arrow). (b) Computed tomography showing small, rounded, and regular hypodense images at the surgical site (arrows)

during surgical resection of the lesion, we chose to keep the patient in deep sedation and neurological intensive care for intracranial hypertension.

On the 7th postoperative day, his level of awareness did not improve, and the wound became dehiscent [Figure 2]. Reoperation showed the presence of larvae on the surgical bed [Figure 3a; Video 1] that were removed and treated using tweezers, place cleaning, debridement, administering ivermectin by nasogastric tube, along with broad-spectrum antibiotics.

Faced with unexpected intraoperative findings, the postoperative CT was revised. Hypodense small, rounded, and regular images were identified at the surgical site [Figure 3b]. These images suggest the radiological diagnosis of the parasite larvae.^[3]

He developed partial neurological improvement and received medical release with a Prognostic Glasgow Score of 2. Metastatic melanoma was the pathological diagnosis of the previously resected tumor.

We believe that the last infestation route, cited earlier in this article, has occurred in our case (flies lay their larvae in or near an operative wound).

CONCLUSION

Although rare, brain myiasis should be a differential diagnosis of surgical wound dehiscence in developing countries. This differential diagnosis should be remembered, particularly when the classic signs of inflammation are not present and brain CT shows hypodense round and regular lesions on imaging.

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Conflicts of interest

There are no conflicts of interest.

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