



Nevus of Ota associated with intracranial melanoma: Case report and review of the literature

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Abstract: There is a known association between nevus of Ota and melanomas involving the brain parenchyma and/or the meninges. We present the unusual case of a 32-year-old African-American female with a nevus of Ota and a contralateral parenchymal, primary CNS melanoma. We discuss the unique features of this case and provide a brief review of the literature regarding nevi of Ota and associated CNS melanoma. Our patient is a 32 year-old, African-American female with a left-sided nevus of Ota who presented with a three month history of headaches and paresthesias involving her left face and arm. An MRI of the brain revealed a hemorrhagic mass in the right temporal lobe, which, after craniotomy, was determined to be a melanoma. Extensive imaging, ophthalmologic examination and full-body skin examination revealed no other foci of melanoma. To our knowledge, this is the only case of a nevus of Ota associated with contralateral parenchymal melanoma in an African-American patient. The association of contralateral parenchymal primary CNS melanoma with nevus of Ota is extremely unusual. Furthermore, despite the association of nevus of Ota with CNS melanoma, the literature does not support routine screening of patients with nevus of Ota for CNS melanoma with imaging modalities.

Keywords: Nevus of Ota; melanoma; skin

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Case Report

The patient is a 32-year-old African-American female with no significant past medical history who had severe headaches and episodes of numbness on the left side of her face and left arm for several months prior to presentation. Of note, the patient had a large nevus of Ota on the left side of her face that had been present since birth (Figure 1). She stated that the nevus had been unchanged for at least a decade. On exam, there was slate-blue patch which covered most of the left half of her face. Most of the left sclera displayed similar blue pigmentation as did a portion of her soft palate. The patient had no pigmented lesions concerning for melanoma on full body skin exam. The patient's neurological exam was normal, except for subtle sensory deficits on the left face and arm. An MRI of the brain revealed a 5 cm hemorrhagic mass located in the right superior temporal gyrus. A subsequent staging work-up including CT scans of the chest, abdomen, and pelvis failed to reveal any other foci of melanoma, so it

was concluded that the melanoma originated intracranially. The patient underwent craniotomy for extirpation of this lesion, and histopathological examination revealed it to be a melanoma. The patient did well initially; however, the melanoma recurred with leptomeningeal dissemination several months after surgery, and the patient expired.

Discussion

We present the case of an intracranial melanoma in a woman with unilateral nevus of Ota. Our case is unique in that the melanoma is contralateral to the patient's nevus of Ota and located in the brain parenchyma.

Nevus of Ota, often referred to as oculodermal melanocytosis, usually occurs as a flat or slightly raised blue-black or slate-gray unilateral discoloration in the distribution of the first and second divisions of the trigeminal nerve^[1]. It is formed by melanoblasts that fail to migrate to the dermoepidermal junction and instead remain in the dermis^[2].

Melanoblasts are the precursors of melanocytes, and

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