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Hemorrhagic brain metastases as a manifestation of metastatic malignant melanoma

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Introduction

A 53- year-old woman was admitted with chief complaints of progressive dyspnea, numbness, and paresthesia of the right side which had lasted for one month. Four years earlier, her right big toe had amputated due a diagnosis of acral lentiginous melanoma. She had had no problems for three years but then developed cervical lymphadenopathy. Excisional biopsy revealed metastatic melanoma. She also had a thyroid nodule which was proved to be papillary thyroid carcinoma based on fine needle aspiration (FNA) results. Because of metastatic malignant melanoma, she received chemotherapy and radiotherapy. Chest X-ray showed multiple round nodules (Figure 1) and brain computed tomography (CT) scan was in favor of multiple round hyperdense lesions with surrounding edema (Figures 2A, 2B, and 2C).

The incidence of malignant melanoma has increased in recent years, i.e. about one in every 70 people will develop melanoma during their lifetime.[1] Central nervous system is the most common site of metastases to the head that occurs in 10-40% of patients with melanoma.[2] Brain metastases are the gravest complications of melanoma and lead to neurologic death in the majority of the patients. Patients who have extracranial metastases, neurologic symptoms, four or more brain metastases, and hydrocephalus and leptomeningeal metastases are at risk for decreased survival.[2,3]

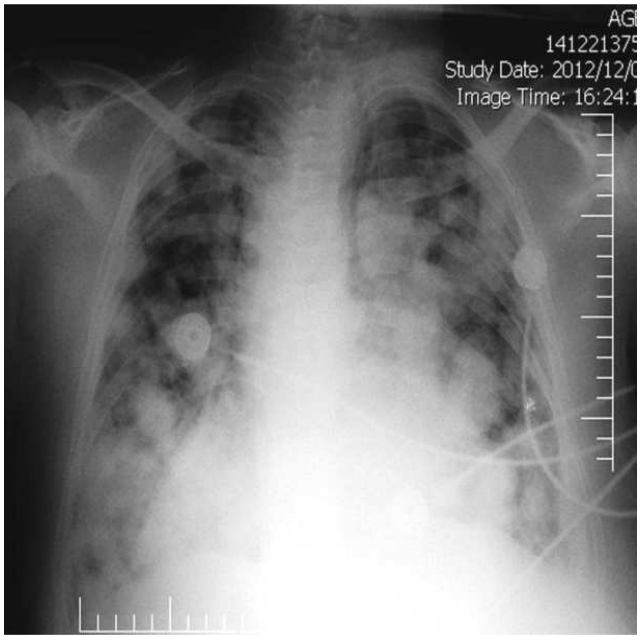

Figure 1. Chest X-ray shows multiple round nodules in both lungs

Brain metastases have wide variety of appearances in metastatic melanoma. A usual appearance of melanoma is melanotic pattern in which blood products and melanin cause hyperdensity on brain CT scan, hypersignal intensity

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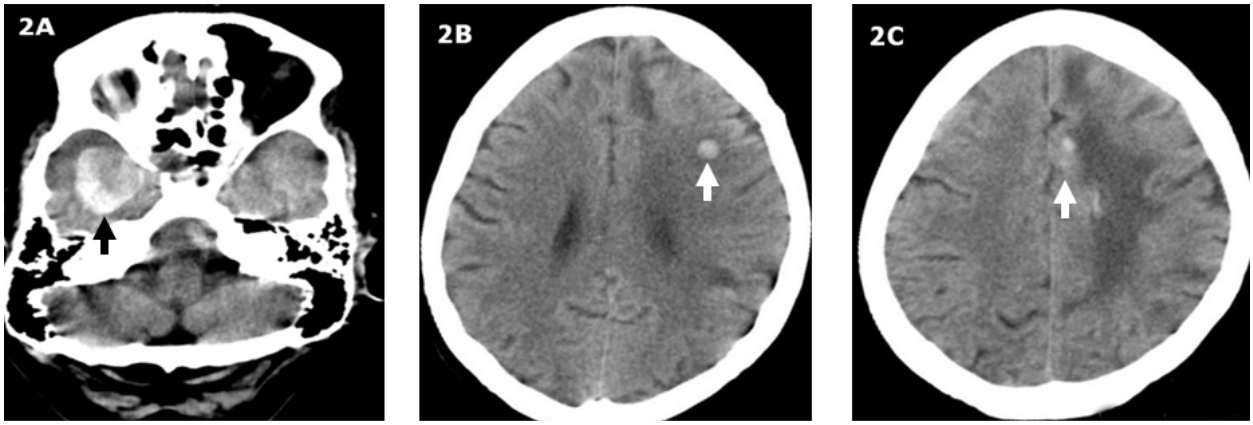

Figure 2A, 2B, 2C. Axial brain computed tomography (CT) scan shows multiple hyperdense round lesions with surrounding edema (arrows)

on T1-weighted magnetic resonance images (MRI), and low signal intensity on T2-weighted MRI. Other features include small size, amelanism, rapid growth, and being subependymal.[4]

Papillary thyroid carcinoma is the most common type of thyroid malignancy with good prognosis. Although brain metastases are very rare (0.1-5.0%) in this type of disease, they may present as hemorrhagic metastases.[5]

Unfortunately, during hospitalization, our patient's conditions aggravated and she was intubated as her level of consciousness decreased. As a result, further investigations such as brain MRI were not performed. According to the patient's history which was compatible with metastatic melanoma and her brain CT scan, it seems that she had melanotic brain metastases.

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