



Brain Metastasis in a Patient with Malignant Melanoma: Melanotic Pattern

Malign Melanomlu Olguda Beyin Metastazı: Melanotik Patern

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Dear Editor,

A man aged 58 years who had been under follow up for malignant melanoma (MM) for six years, was admitted to the neurology outpatient clinic with symptoms of headache and loss of balance. He had had very severe and throbbing headaches for the last 3 days that were not accompanied by nausea and vomiting, and were not completely relieved by analgesics. He also reported loss of balance in the last 2 days, and he had difficulty in holding objects and climbing stairs. From his past medical history, it was learned that he had undergone surgery for MM located on the skin of left shoulder and a lung metastasis that was detected four months ago. On his neurologic examination, he had blurry papillary boundaries prominent on the right side and truncal ataxia. Contrast-enhanced brain magnetic resonance imaging revealed supra- and infratentorial multiple MM metastases that showed lesions in susceptibility weighted imaging (SWI) and VenBOLD sequences that were hyperintense on axial T1-weighted images and hypointense on axial T2-weighted images (Figure 1). Regression of lesions was observed following radiotherapy (Figure 2).

MM is in third place among tumors that metastasize to the brain (1). Although central nervous system metastases were detected in 10-40% of patients with MM in clinical trials, this rate was higher in an autopsy series (two thirds of patients) (2). Secondary

spread of MM into the brain is often observed as multiple (3). The spread of brain metastases can be seen in various forms: the three most common forms are melanotic (hyperintense on T1-weighted images and hypointense on T2-weighted images), amelanotic (iso/hypointense on T1-weighted images and iso/hyperintense on T2-weighted images) and hemorrhagic (hypointense on T1-weighted images and hyperintense on T2-weighted images) (4).

The introduction of new sequences such as SWI in patients with MM, in whom brain metastases are commonly observed, provide significant contributions to the identification of subtypes of MM metastases and evaluation of the response to treatment.

Ethics

Informed Consent: Consent form was filled out by all participants.

Peer-review: Internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: Ö.A.D., A.B., Concept: Ö.A.D., N.H.Y., Design: Ö.A.D., E.B., Data Collection or Processing: Ö.A.D., Analysis or Interpretation: Ö.A.D., G.A., Literature Search: Ö.A.D., N.H.Y., Writing: Ö.A.D.

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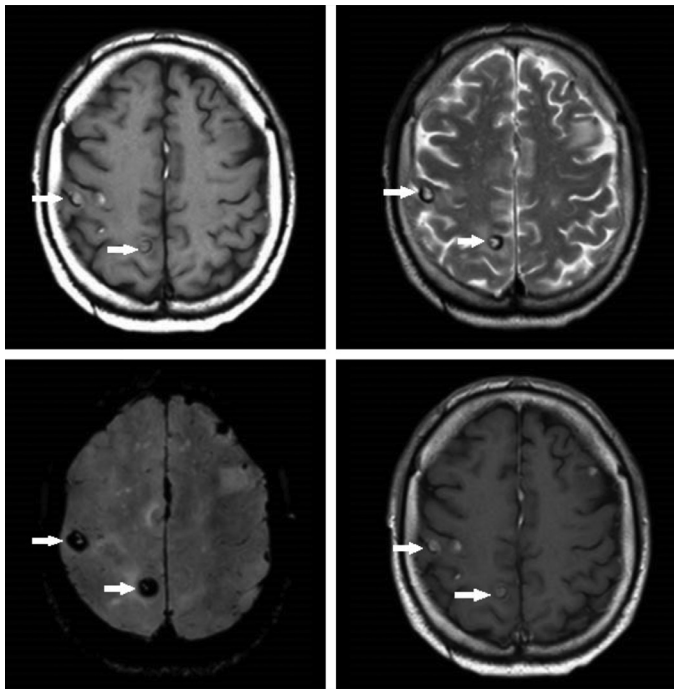


Figure 1. Supra- and infratentorial, multiple malignant melanoma metastases that showed susceptibility artifacts on VenobOLD sequences that were hyperintense on axial T1-weighted images and hypointense on axial T2-weighted images

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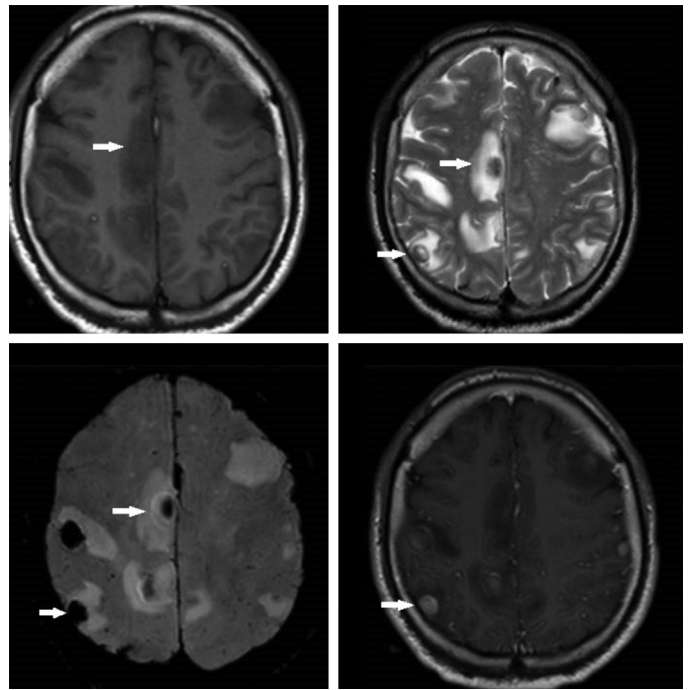


Figure 2. Numeric and dimensional regression in supra- and infratentorial, multiple malignant melanoma metastases on axial T1, T2, VenobOLD and contrast-enhanced T1-weighted images.

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