

Endobronchial Metastasis of Malignant Melanoma Presenting with Dyspnea: Case Report and Literature Review

Dispne ile Gelen Endobronşiyal Malign Melanom Metastazı: Olgu Sunumu ve Literatürün Gözden Geçirilmesi

Yasin ABUL, MD,^a
Emel ERYÜKSEL, MD,^b
Çiğdem ÇELİKEL, MD,^c
Zeynep TOSUNER, MD,^c
Züleyha YAZICI, MD,^d
Sait KARAKURT, MD^b

^aDepartment of Chest Diseases,
Bismil Government Hospital, Diyarbakır
Departments of

^bPulmonary and Critical Care,

^cPathology,

^dDermatology,

Marmara University Faculty of Medicine,
İstanbul

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Yazışma Adresi/Correspondence:

Yasin ABUL, MD

Bismil Government Hospital,
Department of Chest Diseases,
Diyarbakır,
TÜRKİYE/TURKEY
abulyasin@yahoo.com

ABSTRACT Malignant melanoma occurs due to malignant transformation of melanocytes. It has a high mortality rate. Pulmonary metastases are rarely seen and occur via pulmonary arterial embolism. Other sites for metastases are regional lymph nodes, bones and central nervous system. Endobronchial metastatic solid tumors can simulate bronchogenic carcinoma and can present with cough, dyspnea, hemoptysis and wheezing. Malignant melanoma with endobronchial seeding is rare. Histopathological features of the bronchoscopic biopsy and brushing usually reveal the definitive diagnosis in the cases of endobronchial metastasis. We report a case of malignant melanoma with endobronchial metastases diagnosed via bronchoscopy.

Key Words: Melanoma; neoplasm metastasis; bronchoscopy

ÖZET Malign melanom melanositlerin malign transformasyonuna bağlı olarak gelişmektedir. Yüksek mortalitesi bulunmaktadır. Pulmoner metastazlar nadir görülürler ve pulmoner arter embolizmine bağlı gelişmektedirler. Diğer metastaz bölgeleri bölgesel lenf nodları, kemikler ve santral sinir sistemidir. Endobronşiyal metastatik solid tümörler bronkojenik karsinomu taklit edebilirler ve öksürük, dispne, hemoptizi ve wheezing ile gelebilirler. Endobronşiyal ekimin görüldüğü malign melanom nadirdir. Bronkoskopik biyopsideki histopatolojik bulgular ve fırça ile alınan örnekler endobronşiyal metastaz olgularında kesin tanı koydurmaktadır. Yazımızda bronkoskopi ile tanı konan endobronşiyal metastazları olan bir malign melanom olgusunu sunmaktayız.

Anahtar Kelimeler: Melanom; tümör metastazı; bronkoskopi

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Malignant melanoma accounts for 4% of all dermatological cancers. It is composed of transformation of melanocytes and has a high mortality rate. Common metastatic sites for malignant melanoma has been reported as regional lymph nodes, bones and central nervous system.¹⁻³ Metastasis to lung is relatively rare. Tumor embolism through pulmonary arterial system is a known mechanism for pulmonary metastasis of malignant melanoma. There are only a few case reports of malignant melanoma with endobronchial metastasis in the literature.^{4,5} We report a case presenting with dyspnea and a solid lesion on computerized tomography simulating primary bronchogenic carcinoma. The case was finally diagnosed as malignant melanoma with endobronchial metastasis via bronchoscopy.

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CASE REPORT

42 years old woman admitted to our hospital with recent cough and shortness of breath. She had a giant congenital nevus on her back. She was a smoker with 5 pack year. Physical examination revealed that she had a giant, 45 x 50 cm nevus at her lower back which occupied almost lumbar area, spreading to her gluteal region (Figure 1). Multiple nevi were seen at her back. She did not describe and even realize any color change in the nevi. However she described that the thickness of the nevus at her back had increased in the previous year. Her pulmonary examination was normal. Her posteroanterior chest X-ray showed irregularity and high density at the left hilar region. Her thoracic computerized tomography scan revealed a mass lesion with dimensions of 40 x 30 millimeters at the upper lobe of the left lung (Figure 2). During bronchoscopy, we observed a black nevus-like mass lesion protruding to the entrance of the upper lobe of the left lung (Figure 3). Bronchoscopic biopsy, brushing and bronchoalveolar lavage materials led to the diagnosis of endobronchial malignant melanoma (Figure 4a, 4b, 4c). Biopsy from the giant nevus in lumbar region also showed malignant cells and it was diagnosed as cutaneous malignant melanoma.



FIGURE 1: 45x50 cm nevus at the lower back of the patient, which occupied almost all lumbar area, spreading to the gluteal region.

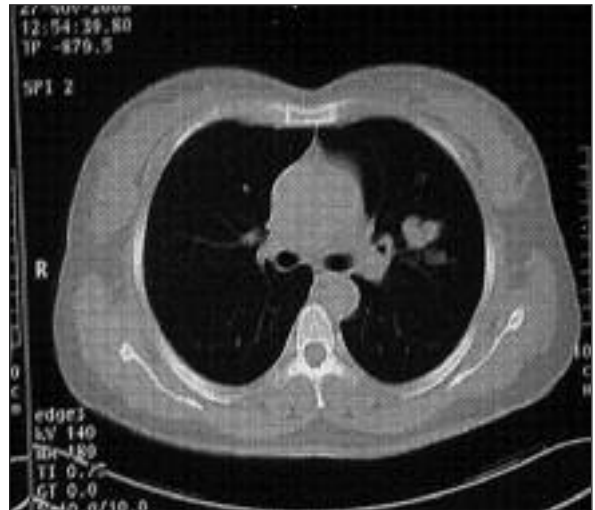


FIGURE 2: CT showing a hyperdense lesion with dimensions of 40 x 30 millimeters in the upper lobe of the lung.



FIGURE 3: Bronchoscopy showing a black nevus-like mass lesion protruding to the entrance of the upper lobe of the left lung

DISCUSSION

Endobronchial metastases of malignant melanoma are rare.⁴ A review of reports between 1966 and 2002 revealed 204 non-pulmonary endobronchial metastases which were originated from breast, kidney, colon and rectum. Only nine skin cancer cases were reported, seven of them being malignant melanomas.⁵⁻⁷ A literature review revealed a total of 14 malignant melanoma patients with endobronchial metastasis and with a known primary tumor.^{4,5,8} Histopathologically, presence of melanin pigmentation in cells and presence of concomitant primary skin le-

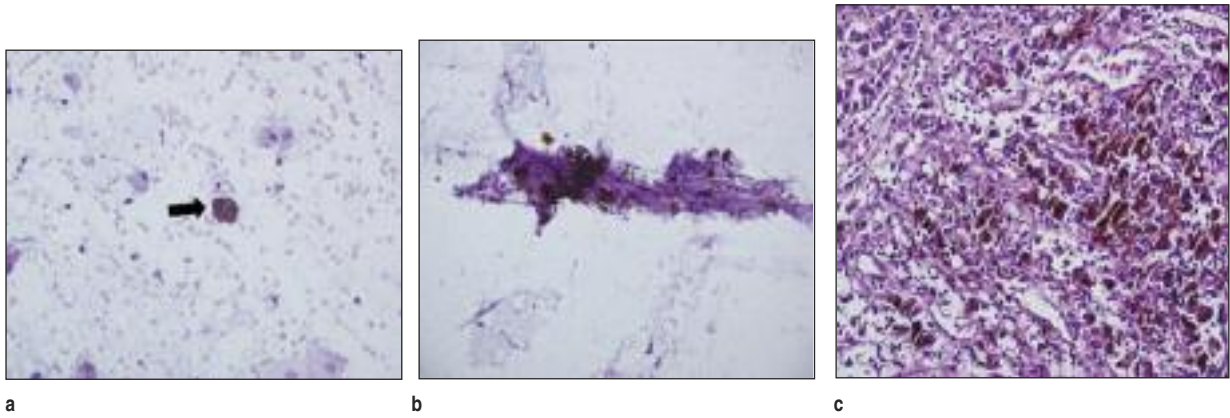


FIGURE 4a Bronchoalveolar lavage of endobronchial lesion showing pigmented malignant melanoma cell with pleomorphic nucleus that contains peripherally clumped chromatin and prominent nucleoli (Black arrow); Papanicolaou, x400; **4b** Brush material of lesion showing black pigmented malignant melanoma cells in groups; Papanicolaou, x200 **4c** Bronchoscopic biopsy material of the lesion showing clumped black pigmented malignant melanoma cells metastasized into bronchial epithelium, H&E, X200.

sion are key points for the diagnosis of malignant melanoma with endobronchial metastasis. Endobronchial metastasis of malign melanoma can mimic primary lung cancer both clinically and radiologically. Any kind of endobronchial metastatic tumor like malignant melanoma can present clinically with cough, hemoptysis, dyspnea and wheezing.⁹⁻¹¹ The most common symptoms were reported as cough and hemoptysis in endobronchial metastatic tumors. Bronchoscopy is crucial for the differential diagnosis.⁶ Survival depends on the biological behavior of the particular tumor, and is related to the responsiveness of tumor to the treatment.¹² The presence of black pigmentation in the airways seen with flexible bronchoscopy is also uncommon. Black, sticky ap-

pearance of a lesion obstructing the bronchus can be associated with a endobronchial metastasis of malign melanoma. Because endobronchial metastatic lesions have a capacity to produce airway obstruction that is indistinguishable from bronchogenic carcinoma, diagnosis of such a lesion has clinical importance. Our case presented with dyspnea and had black colored, sticky bronchoscopic appearance of the tumor.

Malignant melanoma with endobronchial metastasis which present with cough and dyspnea mimicking primary lung cancer both clinically and radiologically is a rare condition and should be considered when there is an atypical bronchoscopic appearance of an endobronchial metastatic tumor.

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