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A Case of Leiomyosarcoma with Endobronchial Metastasis Ten Years After Hysterectomy

Histerektomiden On Yıl Sonra Endobronşial Metastaz İle Gelen Leiomyosarkom Olgusu

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Dear Editor,

Leiomyosarcomas (LMS) are relatively rare smooth muscle-originated malignant tumours presenting themselves on gastrointestinal tract wall, uterine wall, soft tissues of the the extremities, and retroperitoneal tissues including pelvic cavities (1, 2). Sarcomas constitute 3-7% of primary uterine malignancies while 40% of uterine-originated sarcomas are LMS (1). The vast majority (90%) of uterine LMS appear within the first two years of initial diagnosis alongside with local recurrence or the onset of metastasis without recurrence (1, 3, 4).

The metastasis of uterine LMS to the lung is a rare condition and, when it is bound, it usually occurs either during diagnosis or years after the diagnosis (5). LMS with endobronchial metastasis 10 years after hysterectomy is very scarce, which is why we intend to present such a case in this letter.

A fifty-seven-year-old female patient was admitted with complaints of exertional dyspnea, coughing, and green phlegm. The medical history of the patient revealed that she had undergone hysterectomy and bilateral salpingo-oophorectomy due to abnormal uterine bleeding 10 years ago and had diabetes. The family history was unremarkable. Blood pressure was 110/70 mmHg while heart rate was 78/min, respiratory rate 20/min with a body temperature of 36.6°C on physical examination. The respiratory sounds were diminished and expiration was slightly extended. Other systemic examinations were normal. The computed thorax tomography showed solid masses extending to the carina from the right main bronchus and surrounding the lower lobe bronchus along with multiple perihilar and subcarinal lymph nodes in pathological sizes (Figure 1).

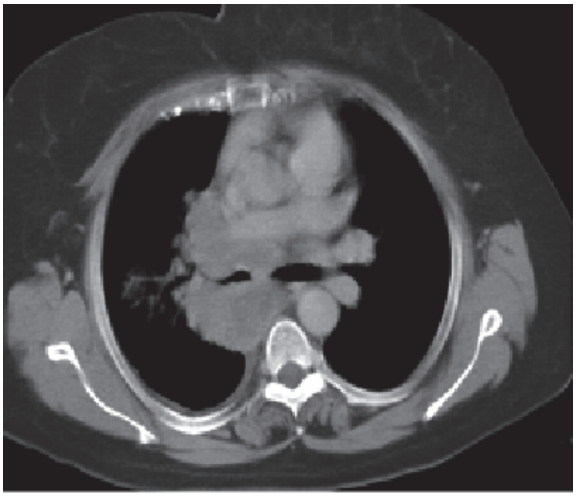

Figure 1. View of the solid mass extending to the carina from the right main bronchus and surrounding the lower lobe bronchus.

The bronchoscopy showed contraction in the right main bronchus due to external pressure and swollen and fragile mucous membranes. In addition, the entrance of the upper lobe was narrowed due to external compression while the mouth of the posterior segment of the upper lobe was fully clogged with endobronchial lesions. Similarly, the lower lobe was narrowed and infiltrated. The histopathological examination of the biopsy specimen obtained from the endobronchial lesions in the upper lobes was reported as LMS (Figures 2, 3).

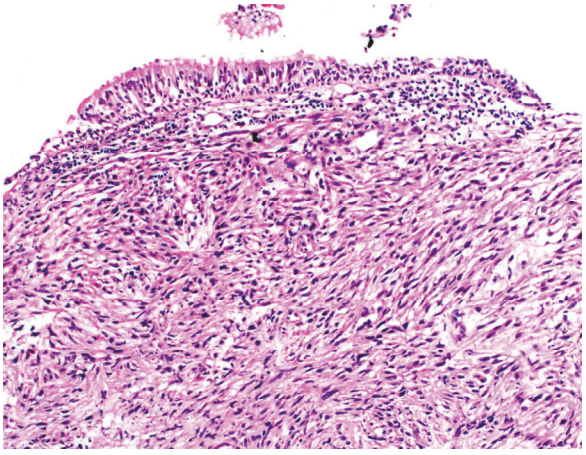

Figure 2. View of the myomatous neoplastic cells with hypercromatic nuclei showing mild pleomorphism, forming short and long fascicular formations on the surface layer of the respiratory epithelium, and occassionally intercrossing one another (HEx100).

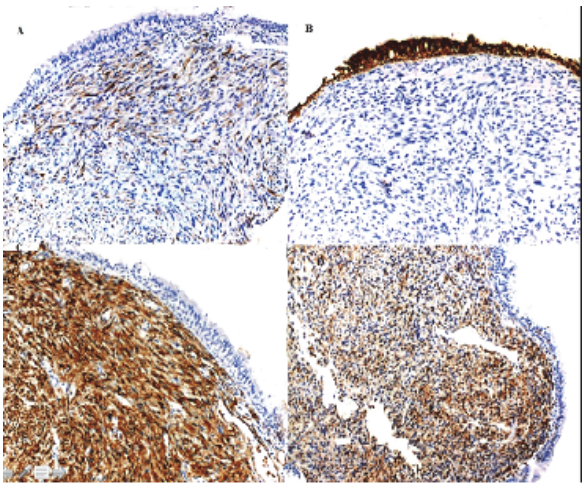

Figure 3. Immunohistochemical phenotype of the tumour: A: focal desmine (+); B:Pan-CK (-); C: diffused α-SMA(+); D: diffused vimentin.

The hysterectomy records of patient showed that the patient had been diagnosed with LMS 10 years ago. In the light of the present findings, we evaluated the lesions in the lung as metastatic LMS. Because of the presence of mediastinal invasion, resection was not considered. The patient was referred to the oncology clinic for treatment planning. However, since the general condition of the patient was not appropriate, chemotherapy was not considered. Instead, as the hemoptysis showed signs of recovery in the later periods, the patient underwent palliative radiotherapy and gave partial response. Our patient is still alive and followed regularly.

Leiomyosarcomas frequently recur as they may also spread in lymphogenous and hematogenous ways (1, 6). Among uterine malignancy causing lung metastasis LMS is infrequently seen. LMS-originated lung metastasis usually occurs hematogenously and in multiple parenchymal nodules. Through extremely rare, it may also manifest itself in endobronchial lesions (6). The previously reported case of endobronchial metastasis had taken place one year after the hysterectomy (6). However, this duration extends to 10 years in our case. According to what we know, having endobronchial metastasis 10 years after the LMS diagnosis, the present case is unique in the literature.

In a series of 133 patients undergoing metastasectomy due to lesions in the lung after uterine malignancies, it was found out that 8.3% of the patients had LMS (7). Patients who undergo operations for LMS may come up with lung metastasis even after many years. Melih et al. report LMS cases with metastatic lung after 10 years while this duration extends to 18 and 26 years in Guazzaroni et al. and Carreiro et al., respectively (4, 5, 8). The metastatic lesions in reported LMS patients may either be solitary, in mass formation, or as masses with collapse (1, 4, 8). The clinical picture in our case was that of a mass lesion with collapse of the right main bronchus in the right main level of carina. Besides, different from other cases, our patient bronchoscopically had endobronchial lesions.

LMS cases with metastatic lung are usually asymptomatic but they may also have non-specific symptoms such as cough, sputum, and hemoptysis. Previous operations and malignancies should be carefully examined especially in patients with lesion in the lung. Also, it should be kept in mind that these patients require long term follow-ups since LMS may cause metastases even after 10 years.

Respectfully,

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