Endobronchial metastases from a leiomyosarcoma of the uterus

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ÖZET

Uterus leiomiyosarkoması kaynaklı endobronşiyal metastaz

Altmışüç yaşında olan bir kadın hasta dispne, kuru öksürük ve göğüs ağrısı yakınmalarıyla başvurdu. Toraks bilgisayarlı tomografisinde sol akciğerde tama yakın atelektazi bildirildi. Bronkoskopik incelemede, sol ana bronş mukozasında yerleşen ve tama yakın tıkanıklığa yol açan bir kitle lezyonu saptandı. Hastanın tıbbi öyküsünde bir yıl önce uterus leiomiyosarkoması için total abdominal histerektomi ve adjuvan radyoterapi ile tedavi edilmiş olduğu anlaşıldı. Hastaya metastatik leiomiyosarkoma tanısı konularak palyatif radyoterapi ile tedavi edildi. Hasta altı ay sonra toraksı ve pelvisi tutan yaygın hastalıkla başvurdu. Tedaviyi kabul etmeyen hasta bir ay sonra öldü. Uterus leiomiyosarkoması tanısı konulan hastalar, alışılmadık bölgelerde göreceli olarak erken metastazlar ile birlikte, saldırgan bir klinik gidiş izleyebilir.

Anahtar Kelimeler: *Uterus, leiomiyosarkoma, endobronşiyal metastaz.*

SUMMARY

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A 63-year-old woman presented with dyspnea, non-productive cough and chest pain. On computed tomography of the thorax, near total atelectasis of the left lung was reported. On bronchoscopic examination, a mass lesion was observed in the mucosa of the left main bronchus leading to near total obstruction. Her medical history revealed that she had been treated with total abdominal hysterectomy and adjuvant radiation therapy for a leiomyosarcoma of the uterus one year ago. She was diagnosed as having a metastatic leiomyosarcoma and was treated with palliative radiation therapy. Six months later, she presented with disseminated disease involving the thorax and the pelvis. She refused further treatment and died one month later. Patients with leiomyosarcomas of the uterus might follow an aggressive clinical course, with relatively early metastases at unusual sites.

Key Words: *Uterus, leiomyosarcoma, endobronchial metastases.*

Leiomyosarcomas are uncommon primary uterine neoplasms. Patients with leiomyosarcomas of the uterus might suffer subsequent recurrences in the form of distant metastasis at unusual sites following initial local treatment (1,2). We report the case of a woman presenting with an endobronchial metastases from a leiomyosarcoma of the uterus that had received local treatment one year ago.

CASE REPORT

A 63-year-old woman presented with dyspnea, non-productive cough and chest pain. On physical examination, she was found to have absent breath sounds over the left hemithorax. Chest X-ray revealed opacification of the left hemithorax, accompanied by left sided mediastinal shift and elevation of the left diaphragm. On computed tomography of the thorax, near total atelectasis of the left lung was reported (Figure 1). Her medical history revealed that she had received local treatment consisting of total abdominal hysterectomy followed by adjuvant radiation therapy for a leiomyosarcoma of the uterus one year ago. The patient was referred for bronchoscopic examination, which revealed near total obstruction of the left main bronchus at 2 cm from the carina by a mass lesion (Figure 2). Biopsies of the mass lesion were obtained during bronchoscopy. Histopathological sections of the biopsy specimen of the bronchial mucosa showed a malignant mesenchymal tumor composed of spindle cells with frequent mitotic figures, partial bundle formations and extensive necrosis. Upon review of the specimen of the uterus together with the specimen of the bronchial mucosa, a histopathological diagnosis of "malignant mesenchymal tumor, consistent with leiomyosarcoma" was made (Figure 3). Endobronchial brachytherapy was not attempted based on the near total obstruction of the left main bronchus on bronchoscopic examination. External beam radiation therapy with palliative intent was undertaken to the metastatic lesion as

Figure 1. Near total atelectasis of the left lung was observed on computed tomography of the thorax (lung window).

Figure 2. Bronchoscopic examination revealed near total obstruction of the left main bronchus at 2 cm from the carina by a mass lesion.

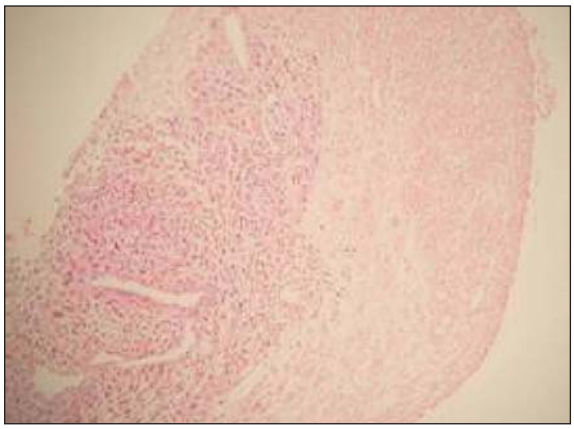

Figure 3. Histopathological sections of the bronchial mucosa showed a malignant mesenchymal tumor composed of spindle cells with frequent mitotic figures, partial bundle formations and extensive necrosis (HE, x100).

well as the mediastinum to a dose of 30 Gy delivered in daily fractions of 3 Gy. The patient remained stable and asymptomatic for six months. At six months following the palliative radiation therapy course, she presented with disseminated disease involving the thorax, the pelvis and the scalp. The patient refused further evaluation and treatment. She was discharged upon palliative medical measures and died at one month following her discharge.

DISCUSSION

Sarcomas comprise less than 5% of all primary neoplasms arising from the uterus. Of all sarcomas arising from the uterus, 20 to 30% are leiomyosarcomas that are commonly observed in women between 40 to 60 years of age, frequently presenting with advanced local disease. Leiomyosarcomas of the uterus can demonstrate local spread by invasion and implantation routes or metastatic spread by lymphatic and hematogenous routes (1,2). As far as the metastatic spread by the hematogenous route is concerned, the lung has been reported to be the most frequently involved site in an autopsy study, likely in relation to being the first-pass organ for the venous drainage from the uterus. Metastatic spread to the lung has often been accompanied by metastatic spread to other sites, a finding that is consistent with the concept of cascade metastases from the first-pass organ (3).

Metastatic involvement of the lung by extrapulmonary malignant tumors is usually parenchymal, although endobronchial involvement can occasionally be observed. Endobronchial metastases from extrapulmonary malignant tumors are usually similar in appearance to primary bronchogenic malignant tumors. Fitzgerald has reviewed 17 patients with endobronchial metastases from various malignant tumors. One of these patients had been reported to have a leiomyosarcoma arising from the forearm (4).

Only a few reports of patients with leiomyosarcomas of the uterus presenting with endobronchial metastases have been published. In 1978, Flynn and Kim have reported a patient with endobronchial metastases from a leiomyosarcoma of the uterus that had presented with severe dyspnea from bronchial obstruction (5). Giudice et al., in 1979, have reported another patient with endobronchial metastases from a leiomyosarcoma of the uterus that had presented with severe hemoptysis (6). In 1993, Gerst et al. have reported a patient with a leiomyosarcoma of the uterus who had developed endobronchial metastases and small bowel metastases eight years after initial local treatment, namely total abdominal hysterectomy (7).

The patient presented in this report developed metastases as early as one year after initial local treatment, at which time she was considered as having no evidence of local recurrence. The early development of metastases at multiple, and fairly unusual, sites in the absence of local recurrence is in contrary to the usual indolent clinical course depicted for leiomyosarcoma of the uterus, and is suggestive of an aggressive clinical course. The high mitotic rate observed in the histopathological examination of the mass lesion might prove a likely explanation for the predilection in the direction of the early development of metastases.

To come to the point, the patient presented in this report calls attention to the possibility that patients with leiomyosarcomas of the uterus might follow an aggressive clinical course and might develop relatively early metastases at unusual sites.

REFERENCES

1. *Salazar OM, Bonfiglio TA, Patten SF, et al. Uterine sarcomas: Analysis of failures with special emphasis on the use of adjuvant radiation therapy. Cancer 1978; 42: 1161-70.*
2. *Gadducci A, Landoni F, Sartori E, et al. Uterine leiomyosarcoma: Analysis of treatment failures and survival. Gynecol Oncol 1996; 62: 25-32.*
3. *Rose PG, Piver MS, Tsukada Y, Lau T. Patterns of metastasis in uterine sarcoma: an autopsy study. Cancer 1989; 63: 935-8.*
4. *Fitzgerald RH. Endobronchial metastases. South Med J 1977; 70: 440-1.*
5. *Flynn KJ, Kim HS. Endobronchial metastasis of uterine leiomyosarcoma. J Am Med Assoc 1978; 240: 2080.*
6. *Giudice JC, Komansky H, Gordon R. Endobronchial metastasis of uterine leiomyosarcoma. J Am Med Assoc 1979; 241: 1684.*
7. *Gerst PH, Levy J, Swaminathan K, et al. Metastatic leiomyosarcoma of the uterus: Unusual presentation of a case with late endobronchial and small bowel metastases. Gynecol Oncol 1993; 49: 271-5.*