

PULMONER METASTAZEKTOMİ SONRASI PATOLOJİ SONUCUYLA GELEN KÖTÜ SÜRPRİZ: SENKRON METASTAZ

A BAD SURPRISE REVEALED IN PATHOLOGY REPORT OF PULMONARY METASTASECTOMY SPECIMEN: SYNCHRONOUS METASTASIS

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ÖZ

Renal hücreli karsinom tüm kanserler içinde %2-3 paya sahiptir. Gelişmiş ülkelerde ve erkeklerde daha siktir. Etiyolojisinde sigara ve obezite gibi çevresel etkenler suçlanmaktadır. Berrak hücreli alt tipi en sık akciğere metastaz yapar ve cilt metastazı sık karşılan bir durum değildir. Akciğer metastazı saptandıktan sonra uygun tedavi planlanmalıdır. Seçili hastalarda yapılan metastazektomi beş yıllık sağ kalımı %58 e kadar arttırmaktadır. Ancak bizim hastamızda olduğu gibi senkron metastazı saptanan hastalarda operasyonun sağ kalıma etkisi olmadığı bilinmektedir. Onkoloji kliniğinde takip edilen ve metastazektomi için tarafımıza gönderilen hastanın ciltte sütür reaksiyonu olarak yorumlanan lezyonu mevcuttu. Hastaya primer malignitesi ve akciğer metastazı kontrol altına alındıktan pulmoner metastazektomi yaptık. Patoloji sonucu cilt metastazı olarak raporlandı. Hastanın 4 aylık takibinde yeni gelişen metastazı yok ve takipleri devam ediyor.

ABSTRACT

Renal cell carcinoma accounts for 2% to 3% of all cancers. It is more frequent in developed countries and in the male gender. The etiology can include environmental factors such as smoking and obesity. The clear cell subtype most commonly metastasizes to the lungs; skin metastasis is uncommon. Appropriate treatment must be planned after lung metastasis is detected. Metastasectomy in selected patients increases the 5-year survival rate to as much as 58%. However, in patients with synchronous metastasis, as in our patient, surgery does not affect survival. A pulmonary metastasectomy was performed on an oncology clinic patient who was referred for a metastasectomy and whose skin lesion was initially interpreted as a suture reaction. Primary disease and lung metastasis were stable in the preoperative period. The pathology report indicated that it was a skin metastasis. Follow-up of the patient continues, and no new metastasis was seen in 4 months.

INTRODUCTION

Renal cell carcinoma constitutes 2% to 3% of all cancer types seen in men (1), with a higher incidence in developed countries. It is 1.5 times more frequent in males than in females. Renal cell carcinoma is the most frequently

observed mass lesion in the kidney, representing 90% of all renal malignancies. Etiological factors include smoking, obesity, and antihypertensive treatment (2). There is a high probability of the detection of metastasis at the time of diagnosis in cases of renal cell

carcinoma. After metastasis has evolved, the prognosis is poor. While the clear cell type metastasizes most frequently to the lungs, the papillary type metastasizes most often to the lymph nodes. Renal chromophobe tumors often metastasize to the liver (3). Early detection of pulmonary metastasis and appropriate surgical or medical treatment increases survival (4). Presently described is the case of a patient with lung metastasis who underwent metastasectomy for the clear cell subtype of renal cell carcinoma.

CASE

A 49-year-old male patient was examined in an internal medicine clinic in 2017 due to fatigue and weight loss, and a mass lesion of 9 cm in the right kidney was observed. A diagnosis of malignancy was made based on the result of a biopsy, and the patient underwent a laparoscopic radical nephrectomy. The pathology report indicated the presence of clear cell subtype renal cell carcinoma.

Positron emission tomography-computed tomography (PET-CT) imagery obtained during follow-up revealed the presence of millimetric nodules in the parenchymal tissue of both lungs that did not demonstrate metabolic activity. The patient was referred to the oncology department because of the possibility of metastasis. Evaluation in the oncology department revealed pulmonary pathologies, and control imaging modalities were planned for 3 months later.

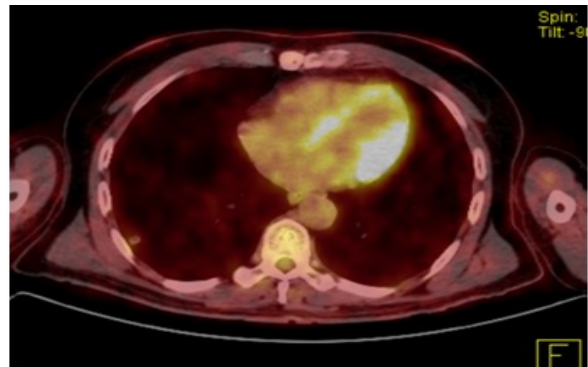
The subsequent PET-CT imaging revealed multiple metastatic nodular lesions in both lungs that demonstrated higher metabolic activity than background activity, mostly of subcentimetric dimensions, with the largest reaching 15 mm in diameter (Figure 1). When the highest SUVmax value of the lesions was measured as 2.07 HU, interferon treatment was initiated by the oncology department.

After 1 month of interferon treatment, a control thorax CT scan showed localized lung nodules on the right side in both lungs. The largest was 8 mm in diameter (Figure 2). The nodules

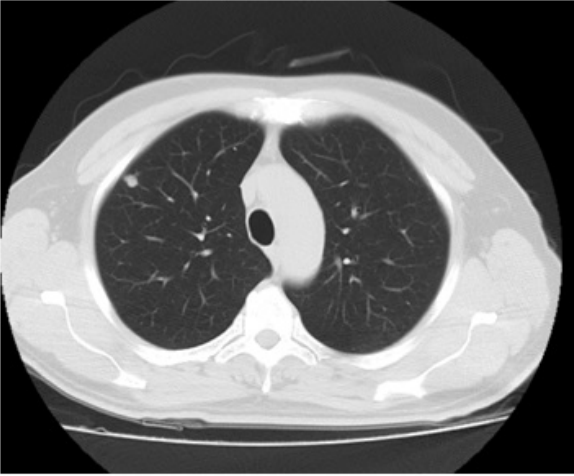
decreased in number and occasionally diminished in size compared with the PET-CT images obtained 1 month previously. A thoracic CT obtained after 3 months showed dimensional progression in some nodules in the bilateral lung parenchyma, and regression in others, including an 11-mm nodule in the upper lobe apical segment of the right lung that had been measured at 7 mm in the previous thoracic CT. When 2 large, newly developed parenchymal nodules, the largest being 5 mm in size, were observed in the laterobasal segment of the right lung lower lobe and were evaluated as evidence of progression, sunitib treatment at a daily dose of 50 mg was initiated, and further imaging was planned for 4 months later. After 4 months, a thoracic CT revealed a 20-mm nodule in the superior segment of the right lower lobe of the lung and an 8-mm nodule in the adjacent segment (Figure 3).

Metastasectomy was planned after consultation with the department of thoracic surgery.

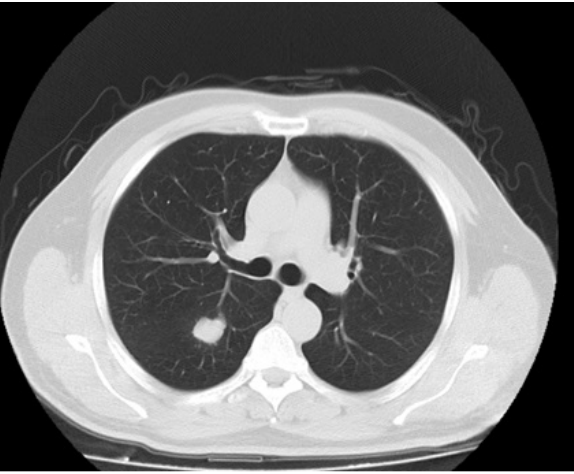
In addition, an abdominal CT revealed a 2-cm nodular lesion on the skin in the right lower quadrant, which developed shortly after the operation and did not cause pain. The patient was referred to the plastic and reconstructive surgery department before the metastasectomy and the lesion was evaluated as an abscess, possibly due to a suture reaction at the incision site of the old laparoscopy. We were told that the lesion could be excised during the same procedure.



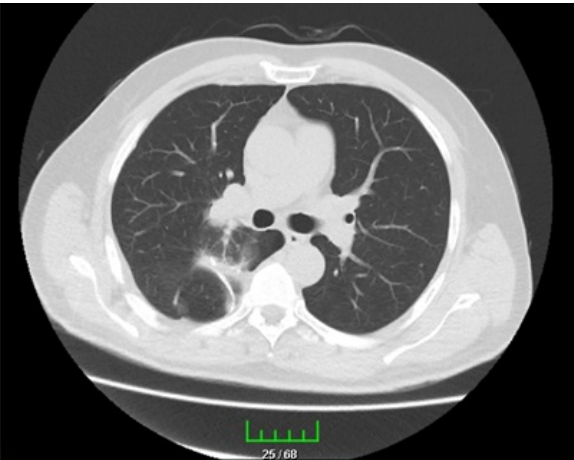
Resim 1. Bilgisayarlı tomografide periferik nodülün görünümü



Resim 2. Parenkim kesitinde periferik nodül görünümü



Resim 3. Sağ alt lobda 20 mm.lik nodül



Resim 4. Kontrol toraks bilgisayarlı tomografisine ait görünüm

A right posterolateral thoracotomy incision was made under general anesthesia and the thoracic cavity was entered through the fifth intercostal space. During exploration, a nodule measuring approximately 2x1 cm was observed in the right lower lobe subsegmental paravertebral area, and a wide wedge resection was performed to remove the lesion with a clear margin. During the same session, the lesion on the skin was locally excised with the surrounding skin tissue. The patient was discharged 3 days after the procedure with control thorax CT (Figure 4), and asked to come to a control visit for evaluation with the pathology results.

In the pathology report obtained 10 days later, the material sent as an excisional biopsy from the chest wall skin lesion was assessed as metastatic carcinoma, and interpreted as renal cell carcinoma. The wedge resection material from the lung was reported as a solid lesion about 2x1 cm and 8 mm in size containing completely necrotic foci.

DISCUSSION

Currently, the number of cases of incidentally diagnosed renal cell carcinoma is increasing as a result of the now widespread use of imaging techniques, such as ultrasound and CT. Incidentally diagnosed tumors are usually smaller, low-grade tumors (5). Therefore, despite the increase in the incidence of coincidental diagnoses, mortality has not increased. One-third of the patients with renal cell carcinoma either have metastases at the time of diagnosis or will have metastasis develop. Renal cell carcinoma most frequently metastasizes to the lungs; however, metastases to the liver, bone, adrenals, pancreas, brain, thyroid gland, skin, and ureter have been reported (3).

When cases with multiple organ metastases were compared with those with lung metastasis only, the cases with lung metastasis were reported to respond better to local and systemic treatment. Five-year survival rates

after pulmonary metastasectomy range between 33% and 58%. The patient's prognosis depends on a long-term disease-free interval and complete resection of all suspected metastases. Since the results of metastasectomy performed in selected patients are satisfactory, metastasectomy is now regarded as standard therapy (6,7). Hoffmann et al.(8) emphasized that the decision to perform a pulmonary metastasectomy should be made in consideration of important variables such as complete resectability of the tumor, the time interval between the onset of metastasis and diagnosis of renal cell carcinoma, the history of immunochemotherapy, and the number of metastases.

It was also reported in the same study that the prognosis is worse when synchronous metastasis is present, as was seen in our case. In our patient, the presence of extrapulmonary

metastasis was not known prior to surgery. The presence of skin metastasis on the laparoscopic nephrectomy incision led to the suspicion of tumor cell seeding during the operation, but systemic spread may be also a problem. Therefore, we cannot clearly predict the contribution of pulmonary metastasectomy to survival. No new lesions developed during the first 4 months of follow-up of our patient and observation continues in the oncology clinic.

CONCLUSION

Renal cell carcinoma is a type of cancer with a high tendency to metastasize. Newly occurring skin lesions of renal cell carcinoma patients should be carefully evaluated. Regular follow up of patients should include evaluation of the lungs, which is the most frequent site of metastasis.

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