Pure Epidural metastases of renal cell carcinoma: A case report

Renal Hücre Karsinomunun Saf Epidural Metastazı: Olgu Raporu

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ABSTRACT

Metastases is the most common cause of spinal tumors. Secondary tumors of the spine most frequently originate from cancers of breast, lung, and prostate carcinomas. Isolated epidural metastases are extremely rare. We present a 52-year-old patient with lumbar epidural metastasis of renal cell carcinoma. The patient was operated and histopathological examination revealed the renal cell carcinoma metastases.

Key Words: Metastases, epidural spinal tumor, renal cell carcinoma

Received: 12.29.2019 **Accepted:** 05.25.2020

ÖZET

Metastazlar spinal tümörlerin en yaygın nedenidir. Omurganın sekonder tümörleri sıklıkla meme, akciğer ve prostat karsinomlarından kaynaklanır. İzole epidural metastazlar oldukça nadirdir. Bu raporda, renal hücre karsinomunun lumbar epidural metastazı bulunan 52 yaşındaki bir hastayı sunmaktayız. Opere edilen hastanın histopatolojik incelemesi renal hücre metastazına işaret etmiştir.

Anahtar Sözcükler: Metastaz, epidural spinal tümör, renal hücre karsinom

Geliş Tarihi: 29.12.2019 **Kabul Tarihi:** 25.05.2020

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doi:http://dx.doi.org/10.12996/gmj.2020.106

INTRODUCTION

The axial skeleton is the third most common site of metastases after lung and liver. Metastases are by far the most common skeletal tumors, and the spine is the most common site of involvement. Metastases account for 70% of all tumors of the spine and lumbar spine is the most frequently involved one (1). Primary malignant axial skeletal neoplasm and metastatic tumors most often involve the vertebra body (2). Isolated epidural involvement is extremely rare. We present isolated lumbar epidural metastases from renal cell carcinomas.

CASE REPORT

A 52-year-old male patient was admitted to our department with a one-month history of low back pain radiating to right leg. The patient's neurological examination revealed Lasegue test was positivity at 60° and his right ankle dorsiflexion weakness. Magnetic resonance imaging (MRI) of the spine revealed 2 lesions at right L4-5 and L5-s1 (Figure 1 and 2) epidural spaces showing contrast enhancement homogeneously. The epidural masses compromised L3-4-5 and S1 roots.

The patient was operated with L4-5and L5-S1 hemilaminectomies and three tumor tissues were removed gross total from epidural spinal region. Immediately following surgery, his right leg pain resolved, and motor deficit improved. Histopathological examination was reported as metastatic renal cell carcinoma and the patient was referred to oncology department for further evaluation and treatment.

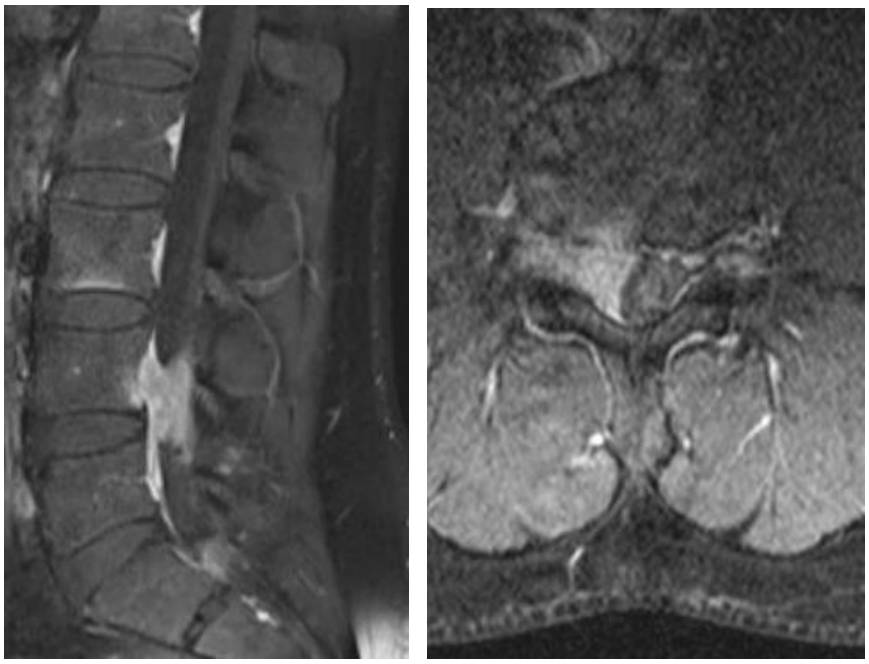

Figure 1. The first lesion; MRI revealed tumors mass right spinal root.

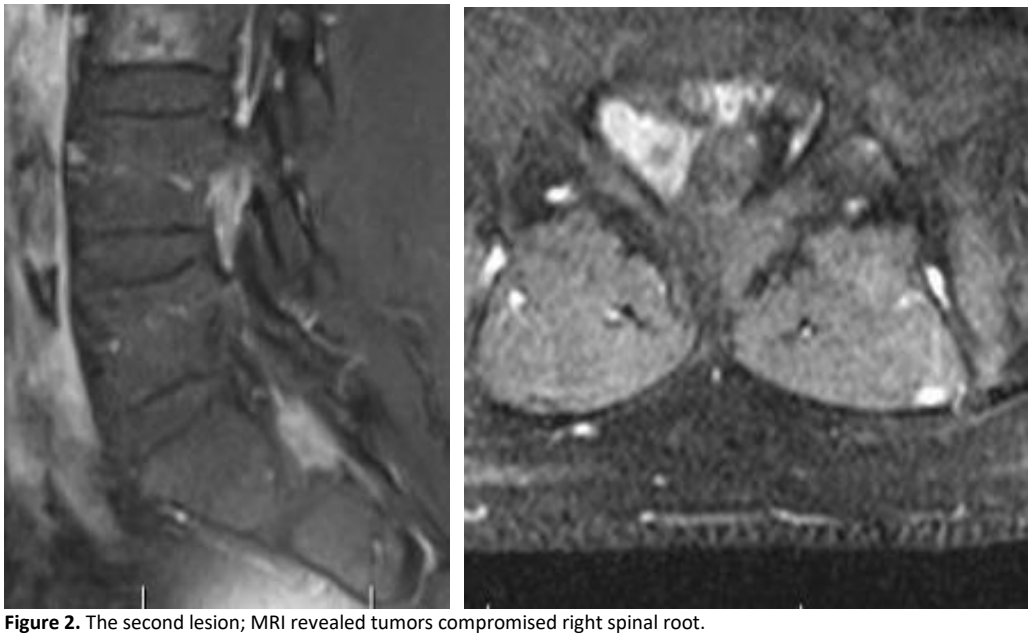

Figure 2. The second lesion; MRI revealed tumors compromised right spinal root.

DISCUSSION

Management of metastatic spine disease is an important part of cancer treatments, given its high incidence (5,6). Most spinal metastases are from lung cancer, followed by breast, prostate, and renal cancers (7,8). Renal cell carcinoma (RCC), despite accounting for only 2% of all malignancies in adults, has a high incidence of bony metastases including spine (9).

Three decades ago, the mean survival time of patients with metastatic RCC was 1.5–2 years, and fewer than 10% patients with metastatic RCC survived more than 2 years (2). With the development of various anticancer therapies and surgical techniques, the life expectancy of RCC patients has been prolonged substantially, with a 5-year survival rate about 62% in RCC patients of any stage (3,4).

In >90% of patients, spinal metastases are extradural, most often arising in the vertebral column and then extending into the epidural space. Spinal metastases very rarely involve the intradural and intramedullary regions of the spine (10). In our case, we found pure epidural metastases. To the best of our knowledge this is the first report of pure epidural metastases without bony involvement in English literature.

The treatment of metastatic spinal tumors typically involves multiple interventions such as surgery, medical therapy and radiation (11). Surgical treatment for spinal metastases must provide for both decompression of the spinal cord and nerve roots and stabilization of the spinal column. In our case, posterior approach was chosen to ensure the root decompression therefore to relieve pain and preserve or restore neurological function.

CONCLUSION

Although spinal metastases mostly involve bone, pure epidural metastases can also be seen and therefore metastases should be kept in mind in differential diagnoses of epidural lesion without bony involvement. The treatment of metastatic spinal tumors typically involves multiple interventions such as surgery, medical therapy and radiation. In our case, posterior approach was chosen to ensure the root decompression therefore to relieve pain and preserve or restore neurological function.

Conflict of interest
No conflict of interest was declared by the author.

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