

Case Report

A Rare Case of Metastatic Renal Cell Carcinoma in Posterior Fossa

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ABSTRACT

Renal cell carcinoma (RCC) is a tumor with high degree of potentiality for distant metastasis. Intracranial metastasis is a very rare location for this tumor. Here is presented a 47-year-old female with history of RCC and cerebellar metastasis.

Key Words: Renal Cell Carcinoma, Metastasis, Posterior Fossa

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A 47-year-old female with nephrectomy for renal cell carcinoma one year ago, presented with ataxic gait, dizziness and headache. In physical examination, she had impaired finger to nose and heel to shin test and ataxic Gait toward left side. Cranial nerves, extra ocular eye movement and other neurological exams were normal.

Brain CT showed acute hydrocephaly, a single hyper dense lesion (22cm²) in right cerebellar hemisphere with central hypo intensity and peripheral enhancement. MRI was not taken (Figure 1).

At first, ventriculostomy was done for external ventricular drainage, and then the tumor was removed totally through posterior fossa craniotomy.

Histopathology confirmed diagnosis of RCC as a primary type of tumor with metastasis to posterior fossa. There were cells with abundant clear cytoplasm arranged in an alveolar pattern and they had slightly irregular nuclear contours. These findings were relevant to clear cell type of R.C.C grade 2-3.

Discussion

With advance in sensitive diagnostic procedures including magnetic resonance imaging (MRI), more cases of intracranial metastatic

renal cell carcinoma have been documented. Intracranially, the most cases of RCC are in supratentorial region ¹. Metastases in Posterior fossa are rare compared with supratentorial secondary tumors ². Kanner and coworkers have described 93 patients with secondary tumors in posterior fossa without specifying in site of tumor origin.

They announced that metastases in posterior fossa considered a negative prognostic factor and surgical approach versus radiotherapy had a better result ³.

Some data supports the supratentorial location for RCC metastasis;

Metastases of RCC in posterior fossa were only reported in syndromic patients as tumor-to-tumor metastasis: three records of Von-Hippel-Lindau patients with hemangioblastoma, complicated by RCC and subsequent posterior fossa metastasis of RCC ^{4,5}.

Mottolesce and Hamazaki reported 3 new case of metastatic hypernephroma to cerebellar hemangioblastoma in a patient with von-Hippel-Lindau disease ^{4,5}.

Posterior fossa metastasis of RCC has not been reported since recent 15 years ⁶. So, the real frequency of this pathological entity is not well defined.

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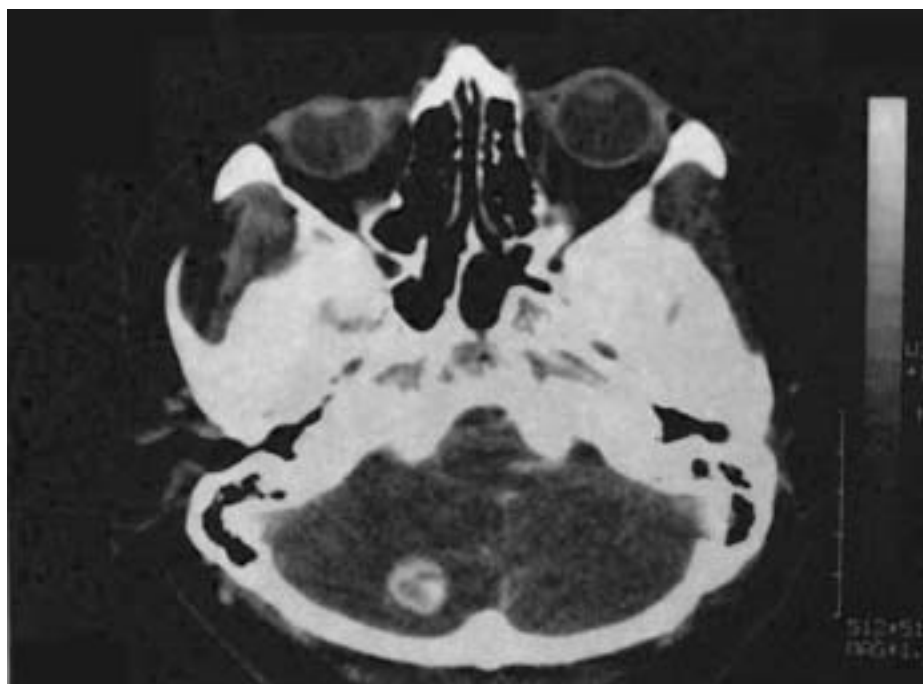


Figure 1. Metastatic renal cell carcinoma in posterior fossa

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