

Extensive metastatic renal cell carcinoma presenting as facial nerve palsy

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Abstract

Metastatic lesions of the parotid gland are well described in the literature. Metastatic spread to the parotid from renal cell carcinoma is rare. We present the only reported case of facial nerve palsy caused by a metastasis to the parotid from a renal cell carcinoma.

Key words: Facial Paralysis; Parotid Neoplasms; Carcinoma; Renal Cell

Introduction

Facial nerve palsy (FNP) is a common presenting complaint to ear, nose and throat (ENT) surgeons. Primary or secondary lesions of the parotid may cause FNP. Secondaries to the parotid usually originate from skin lesions such as malignant melanoma.

We present the only reported case of FNP caused by a metastasis to the parotid from a renal cell carcinoma (RCC).

Case report

A 61-year-old man presented to the ENT outpatient clinic with a two-week history of right-sided facial weakness and post-auricular pain. The weakness was of sudden onset and partial. There was no history of other neurological symptoms, head injury, shingles or otological disease. He had been previously fit and well. He was a smoker and drank alcohol occasionally. He also complained of a six-month history of worsening left hip pain. This had been X-rayed previously and had been attributed to osteoarthritis.

On examination the ears, nose and throat were normal. He was found to have a 2 cm lesion in the tail of the right parotid gland, which was firm, non-tender, with no overlying skin fixation. Two ipsilateral cervical lymph nodes (both approximately 2 cm in diameter, in the posterior triangle of neck and submandibular area) were palpable. Examination of the face demonstrated a right partial lower motor neurone FNP, House-Brackmann grade IV.

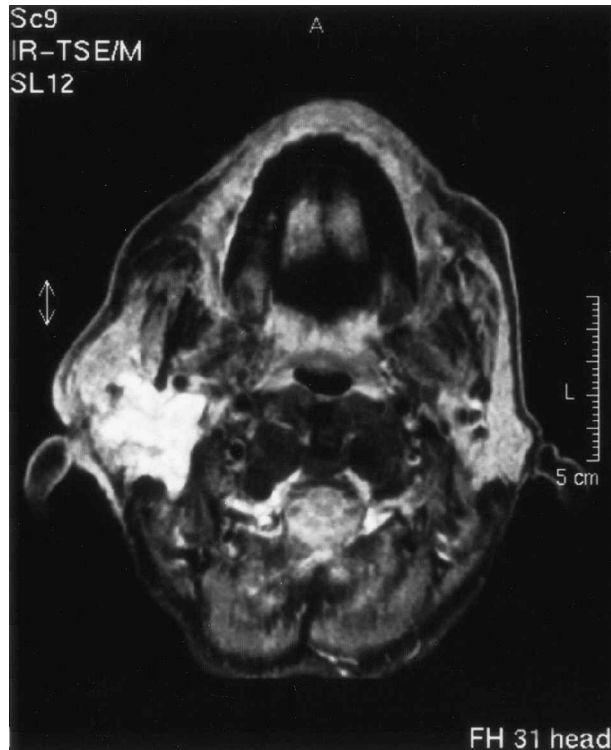


FIG. 1

MRI scan demonstrating a lesion in the superficial and deep lobes of the right parotid gland.



FIG. 2

CT scan of the abdomen demonstrating a lesion in the lower pole of the right kidney, mesenteric lymphadenopathy and a subcutaneous lesion.

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A presumptive diagnosis of primary carcinoma of the parotid was made. A fine needle aspiration (FNA) suggested adenocarcinoma of the parotid. A computerised tomography (CT) scan of the head and neck demonstrated a lesion involving both lobes of the parotid, with internal jugular vein thrombosis, cervical lymphadenopathy and possible cerebral metastases.

He was admitted for biopsy of the parotid and staging. An incisional rather than excisional biopsy was performed, as at the time of surgery he was quite unwell and was known to have metastatic disease from the staging investigations. Histology of the incisional biopsy was diagnostic of metastatic clear cell carcinoma of the kidney. An ultrasound scan, bone scan, magnetic resonance

imaging (MRI) and further CT scanning revealed a lesion of the lower pole of the right kidney, suggestive of RCC with direct spread to the right suprarenal gland and with bony, skin, pulmonary and cerebral metastases (Figures 1, 2 and 3).

An X-ray of the left hip demonstrated a lesion consistent with a secondary deposit and an impending pathological fracture. The patient underwent a left total hip replacement to prevent this, and a lateral tarsorrhaphy for eye protection. He was referred to the oncologists for radiotherapy to the bony metastases and pain relief. Later, he was admitted to a hospice for terminal care.

Discussion

Renal cell carcinoma is uncommon, accounting for approximately 3 per cent of adult malignancies. It is the commonest malignant tumour of the kidney, and more than 80 per cent of cases are of the clear cell type (hypernephroma). There is a higher incidence in men and in the 40–70 year age group.¹ They usually present with local symptoms such as pain, haematuria and a mass, or systemic features such as fever, weight loss, hypertension and hypercalcaemia.¹

RCC has a high metastatic potential, spreading to bone, lung, liver, brain and skin via the lymphatic system and blood. About 25 per cent of cases of RCC have metastases at presentation.² Metastases to the head and neck are less common (8–14 per cent), the most common site being the thyroid.³ Metastases to the parotid are rare but may be the presenting feature of RCC.^{2–7} They are usually blood-borne. None of the reported cases have presented with a facial nerve palsy. Although our patient had been suffering from hip pain from his bony metastases, this had been attributed to arthritis. Therefore the facial nerve palsy was the initial presentation of his RCC.

Of malignant lesions of the parotid 9–14 per cent represent metastases. The commonest lesions to metastasise to the parotid are skin (melanoma or squamous cell carcinoma), breast, lung and thyroid cancers.⁵ It is important to differentiate histologically between primary adenoma or carcinoma of the parotid and secondaries to the parotid, as the management is very different. The former are usually managed surgically with post-operative radiotherapy, often with the aim of cure. Treatment of metastatic RCC is usually palliative, using a combination of chemotherapy and immunotherapy. Radiotherapy and surgery to bony metastases may be indicated. There is an argument for operating on solitary RCC metastases to the parotid, especially if they present many years after the initial diagnosis, as this may improve five-year survival.⁵

In metastatic RCC this is less than 10 per cent, worse if there is extensive disease at presentation or if there is a short time period between presentation of the primary and of the secondaries.¹

Conclusion

It is important to consider secondaries in the parotid as a cause of facial nerve palsy and to distinguish them from primary carcinomas of the parotid. If adenocarcinoma is identified on FNA, an excisional biopsy or superficial parotidectomy specimen may be needed as FNA cytology may not differentiate between primary parotid lesions and metastases from other primary lesions, including renal cell carcinoma. Further imaging outside the head and neck may be indicated also. Identifying the correct nature of the parotid lesion radically alters the management and prognosis of these patients.

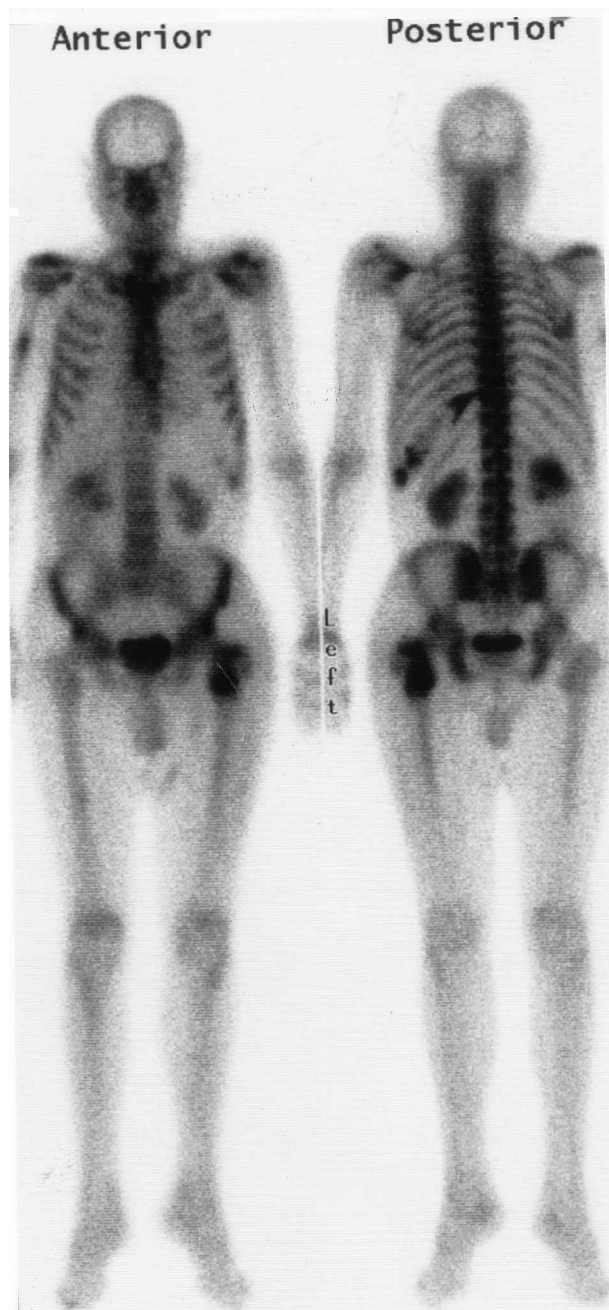


FIG. 3

Bone scan demonstrating the missing lower pole of the right kidney and bony lesions of the left head of femur, ribs and right shaft of humerus.

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Miss S. Kundu takes responsibility for the integrity of the content of the paper.

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