

SCALP CYSTS ARE NOT ALWAYS SEBACEOUS IN ORIGIN TWO CASES OF OCCULT RENAL CELL CARCINOMA PRESENTING WITH SCALP NODULES

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INTRODUCTION

Renal cell carcinoma accounts for 2-3% of all the malignancies. Distant metastases occur to liver, lungs, bones and rarely to skin. Scalp is the commonest site in case of cutaneous metastasis. The survival rate for disseminated disease is low [1].

The appearance of cutaneous metastasis from renal cell carcinoma may precede the detection of the underlying tumour, although mostly the cutaneous metastasis is observed after the primary lesion has been detected. The skin should be examined during tumour evaluation and skin lesion in patients with renal cell carcinoma should be investigated aggressively to rule out cutaneous metastasis. Physicians, dermatologists, pathologists and surgeons should be aware of this entity.

We present two cases, which presented atypically with skin metastasis. Excision biopsy confirmed incidental cutaneous metastasis from renal cell carcinoma. Both patients underwent staging investigations and radical nephrectomy as part of the treatment.

CASE NO - 1

An eighty two year old man presented to the general surgical clinic with two small lumps, which gradually increased in size. On examination there were two 1 X 1 cm lumps - one over the scalp and another over the right shoulder. He was also previously diagnosed to have adenocarcinoma of the prostate [3

years ago] and was on hormonal treatment. He had an elective excision of the lumps under local anaesthetic. Histology revealed metastatic clear cell carcinoma from an unknown primary and the resection margins were clear. The histology revealed well circumscribed tumour deposits surrounded by fibro muscular and fatty tissue (figure). There were clear cells having distinct rounded nuclei and clear cytoplasm and there was evidence of angio-invasion. Special stains like PSA were performed to rule out the possibility of prostatic metastasis. The patient subsequently underwent investigations and CT scan of the abdomen showed a 7 cm mass at the lower pole of right kidney, enlarged para aortic lymph nodes and no evidence of metastasis elsewhere. Both PSA and bone scan were found to be normal. He was referred to urologist and underwent radical right nephrectomy, which confirmed a renal cell carcinoma.

CASE NO - 2

A 58 year old man presented with a lump over the scalp, which was initially diagnosed as a sebaceous cyst. It was excised under local anaesthetic, but histology was consistent with that of a metastatic clear cell carcinoma. The patient underwent left radical nephrectomy for renal cell carcinoma 4 years ago, which was not noted during the initial examination. Subsequent CT scan of the abdomen revealed a 4 cm mass at the upper pole of right kidney that was considered to be a new primary or metastases. He underwent partial right nephrectomy and a renal cell carcinoma was removed and also received interferon therapy and local radiotherapy to the scalp.

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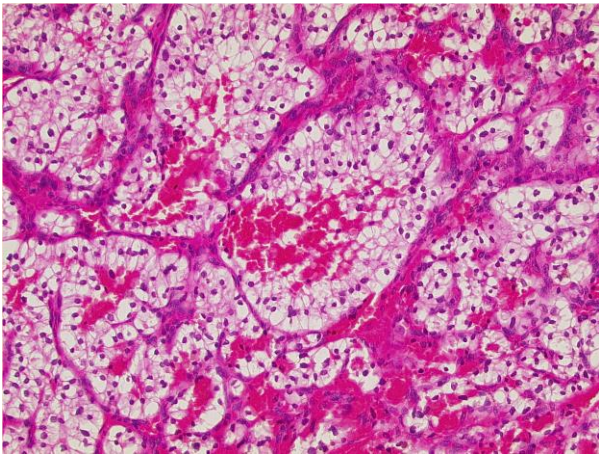


Figure: Photomicrograph showing neoplastic cells with hyperchromatic nuclei, and clear cytoplasm, surrounded by septae rich in blood vessels. H & E x 400.

DISCUSSION

Renal cell carcinoma accounts for 2-3% of all the malignancies [1]. It is common in the 5th to 7th decade of life [2]. Despite advances in the management of the disease, the 5-year survival is about 50%. Surgery is the mainstay of treatment as the response to radiotherapy and chemotherapy is poor [3]. About one in five patients with renal cell carcinoma has metastatic disease at the time of presentation [4]. The most frequent sites of metastasis are to the lungs, liver and the bones [5]. Cutaneous metastasis from renal cell carcinoma is believed to be rare and can occur in 3-6% of patients [6].

There is some predilection for metastasis to the head and neck region especially the scalp [7]. Dorairajan et al reported 306 patients with renal cell carcinoma, 10 had skin metastasis and scalp was the commonest site [8]. In a large study of the patients with internal malignancies metastasizing to the skin, renal cell carcinoma was responsible for 6% of such cases [9]. Spitz et al while analyzing cytology of scalp nodules found 53 patients had metastatic cancer and 4 cases were secondary to renal cell carcinoma [10].

The exact mechanism of these metastases is unknown although various methods are postulated. Renal tumours while

metastasizing to lungs. May pass unfiltered through the pulmonary circulation and result in wide spread systemic metastasis. A small sub-clinical atrial septal defect could also contribute to systemic metastasis. The vertebral venous plexus of Batson is a low-pressure venous plexus and plexus could also serve as a possible route for the head and neck metastasis [11]. Snow et al postulated that cutaneous metastasis could result from secondary metastasis from the intra thoracic lesion [12]. They are also believed to occur as result of hemorrhagic dissemination after an initial lymphatic spread. Kouroupakis et al postulated that skin metastasis, are synchronous rather than metachronous [13].

About 10-20% of renal tumours present with skin lesion before any other symptoms and 100-200 cases of renal cell carcinoma are diagnosed per year in this way. Cutaneous metastasis is a late manifestation of renal tumour [14] and can pulsate due to the dense network of arterioles and venules [15]. Patients presenting with skin metastasis should undergo further staging investigations. The surgical treatment is mandatory for single nodule. Chemotherapy is often ineffective. However in case of solitary skin metastasis the 5 year survival is about 10-40%. In some series spontaneous regression of skin metastasis has been reported [16]. The prognosis is poor, with a five year survival rate of 0-8% in patients with multiple nodules [17].

CONCLUSION

It is important to remember that only 10% of cases of renal cell carcinoma have a typical triad of flank pain, hematuria and mass abdomen. The presence of scalp lumps could be the first manifestation of a serious disease and warrants detailed examination and further investigations. Fine needle aspiration cytology (FNAC) or excision biopsy can provide accurate diagnosis in the evaluation of scalp nodules. It also highlights the importance of long term follow up of patients operated for renal cell carcinoma as

they may develop cutaneous metastasis. These implications are important to surgeons, dermatologists, oncologists and general practitioners.

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