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Adenoid Cystic Carcinoma of Parotid Metastatic To Kidney Presenting With Isolated Renal Mass Masquerading As Renal Cell Carcinoma- A Rare Case Report.

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ABSTRACT

Adenoid cystic carcinoma is a rare tumour accounting for less than 1% of all head and neck malignancies and 10% of all salivary gland neoplasms. 50% of cases have been found in minor salivary glands but are also reported in nose, sinuses, upper airway, lacrimal glands and breast. Those affected are in the age group 20-84 years (mean 52 years). Adenoid cystic carcinoma of the head and neck is relatively rare and is characterized by slow evolution, multiple recurrences, protracted clinical course, and late distant metastasis but frequently metastasizes to lung. Here, we are presenting a rare case of adenoid cystic carcinoma metastasizing to kidney and masquerading clinically and radiologically as primary renal cell carcinoma. Lymph node metastases are unusual, hematogenous spread, often to the lungs is quite characteristic, metastasis to kidney being extremely rare.

Keywords: Adenoid cystic carcinoma, metastasis, FNAC-fine needle aspiration cytology.

INTRODUCTION

Adenoid cyctic carcinoma of head and neck is a rare tumour and is rarely metastasized to kidney but with a frequent metastasis to lungs.[1-8] It is a slow-growing, but aggressive neoplasm with a remarkable capacity for recurrence.[9,10]

It can arise in any salivary gland site, but approximately 50–60% develops within the minor salivary glands. In the parotid gland, the ACC is relatively rare, constituting only 2–3% of all tumors.[11] It is clinically deceptive by virtue of its small size and slow growth, which belies its extensive subclinical invasion relentlessly into adjacent structures. The diagnostic clue in aspirates from ACC are large globules of extracellular matrix, partially surrounded by basaloid tumor cells.

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CASE REPORT

A 56 year old female presented with history of right side flank pain and weight loss since two months duration.Ultrasonography (USG) and computed tomography (CT) revealed a right renal mass measuring 10 x 6 cm lying in the upper pole. No lymph nodes were identified. Clinico-radiological features suggested a diagnosis of renal cell carcinoma. Chest radiographs revealed multiple homogenous opacities (coin shadows) in lungs which were suspected to be metastatic renal cell carcinoma. The patient was referred to pathology department for USG guided fine needle aspiration cytology (FNAC) of the renal lump. Smears were wet fixed and stained with May Grunwald Geimsa stain.

On further interrogation for any complaints or surgical procedures in head and neck region, the patient gave previous history of a parotid mass 6 years back which was excised and reported as adenoid cystic carcinoma on histopathology. Haemoglobin of patient was 9 gm%, s.creatinine-1mg/dl, blood urea nitrogen-18mg/dl.

Pathological findings: Smears were cellular comprising of well delineated, tightly cohesive

clusters and tissue fragments of basaloid cells embedded in hyaline stroma along with numerous cup shaped hyaline spherical globules of variable size. At places dense aggregates of monomorphic small cells with uniform round to oval hyperchromatic nuclei and scanty cytoplasm were seen. Smears also showed occasional singly lying tumour cells with high N:C ratio and nuclear moulding. Abundant fibrillary eosinophillic chondroid stroma was seen lying in the background.[Figure 1 & 2]. FNAC findings were suggestive of metastasis of malignancy of salivary gland- adenoid cystic carcinoma with its secondaries in the lungs and in the right kidney.

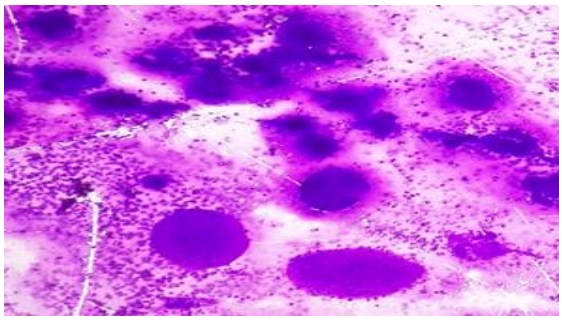

Figure 1: Picture shows fragments of cup shaped hyaline globules with round uniform tumour cells and background of chondromyxoid stroma (MGG 100X)

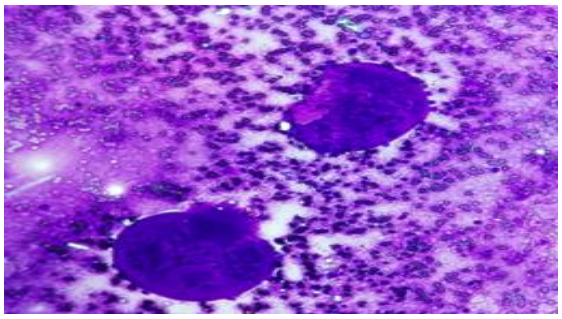

Figure 2: Picture shows fragments of basaloid cells embedded in hyaline stroma.

DISCUSSION

Adenoid cystic carcinomas are characterized by slow growth, multiple recurrences, long clinical course, early perineural spread and late metastasis.[8] The metastasis from adenoid cystic carcinomas is known to occur late, even many years after the primary tumour has been removed. Metastasis to the kidney is uncommon. Only few cases have been reported in the literature.[3,4] Herzberg et al reported metastatic adenoid cystic carcinoma kidney after 12 years of mastectomy for adenoid cystic carcinoma breast.[3] Awakura et al diagnosed metastatic adenoid cystic carcinoma kidney 5 years after parotidectomy for adenoid cystic carcinoma. Four years after left renal nephrectomy,[4] multiple metastases were demonstrated in the other kidney, liver, lungs and brain by CT scan. Our patient presented with metastatic deposits in the kidney and lungs 6 years after the primary in the parotid had been excised.

Most of the cases reported in the literature were diagnosed on histology.[3-6] We could establish the diagnosis on FNAC of the renal mass. One of the few cases that we came across where a pre operative diagnosis by FNAC could be established was reported by Jimenez-Heffernan et al.[7]

CONCLUSION

The present case highlights the need to be aware of unusual presentation of adenoid cystic carcinoma that may present as renal mass. Knowledge of these lesions and awareness of cytology of adenoid cystic carcinoma will help in making a correct diagnosis on FNA.

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