JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH

How to cite this article:
FERNANDES H, D'SOUZA C R S, JAYAPRAKASH C S, MARLA N J, SWETHADRI G K SOLITARY AXILLARY LYMPH NODE METASTASIS: A RARE MANIFESTATION OF RENAL CELL CARCINOMA.Journal of Clinical and Diagnostic Research [serial online] 2009 June [cited: 2009 June 1]; 3:1580-1582.

Available from
http://www.jcdr.net/back_issues.asp?issn=0973-709x&year=2009&month=June &volume=3&issue=3&page=1580-1582&id=411

CASE REPORT

Solitary Axillary Lymph Node Metastasis: A Rare Manifestation of Renal Cell Carcinoma

FERNANDES H*, D'SOUZA C R S**, JAYAPRAKASH C S***, MARLA N J****, SWETHADRI G K*****

ABSTRACT

Renal cell carcinoma is (RCC) is notorious for presenting as metastatic carcinoma of unknown primary sites and sometimes at unusual sites. RCC presenting as solitary metastatic lesions are about 1-3%.

A 60 year old woman presented with an axillary lump of 2 weeks duration. FNAC revealed a diagnosis of metastatic adenocarcinoma.The protocol followed for the search for the primary detected a tumour in the right kidney. No other metastases were detected. The patient underwent radical nephrectomy and axillary clearance.

Axillary lymph node metastasis, an uncommon site for distant metastasis, as a first clinical sign leading to the diagnosis is rare. FNAC is a simple, quick and easy procedure for diagnosing metastatic lesions. It can guide the clinician to investigate for the possible site of the primary tumour. Complete resection of solitary metastases is justified and can contribute to long term survival.

Key Message: Axillary lymph node metastasis, an uncommon site for distant metastasis, as a first clinical sign leading to the diagnosis is rare. Complete resection of solitary metastasis from RCC is justified and can contribute to long term survival.

Key Words: RCC, solitary metastasis, axillary lymph node

*Addl..Professor, **Assoc.Professor, ***Assoc.Professor, ****Asst.Professor *****Professor, Department of surgery Fr Muller Medical College, Mangalore,(India)
Corresponding Author
Dr Hilda Fernandes, Dept. of Pathology, Fr Muller
Medical College, Mangalore (INDIA).
E-mail - hilda67@rediffmail.com

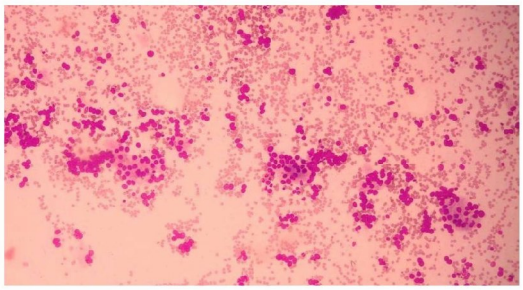
Introduction

The phenomenon of solitary metastases in Renal Cell Carcinoma (RCC) has been the subject of several studies and case reports. The frequency of solitary metastases is about 1-3% and 5 year survival rates of 30-50% may be achieved after resection [1]. We report here, a case of a solitary metastasis in the axillary lymph node from RCC.

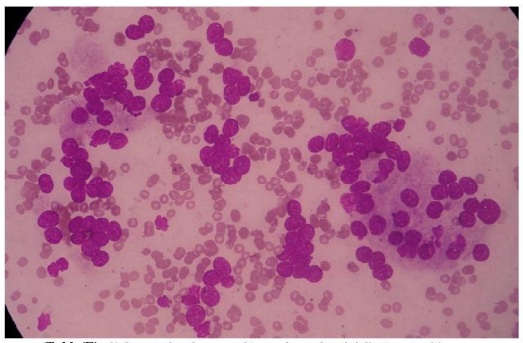
Case Report

A 60-year-old female patient presented with a left axillary lump of 2 weeks duration. She had no other complaints. On local examination, a single, mobile, firm lymph node of size 4x3cms was palpable in the left axilla. Other systemic examination was unremarkable. With a differential diagnosis of lymphoma or a metastatic carcinoma, FNAC (Fine Needle Aspiration Cytology) was performed using a 23G needle fitted to a 10ml disposable syringe, which yielded a haemorrhagic aspirate. Wet fixed smears were stained with the Papanicolaou stain and

air dried smears with the May Grunwald Giemsa's stain. Smears were moderately cellular with round to oval cells in an acinar pattern and in sheets [Table/Fig 1]. The cells exhibited mild pleomorphism and contained delicate cytoplasm [Table/Fig 2]. Numerous bare nuclei were seen in a haemorrhagic background. A cytological diagnosis of metastatic adenocarcinoma was rendered, with a suggestion to look for the primary tumour in the kidney. CT scan of the neck, chest and abdomen detected a left renal tumour without any regional node, liver or lung metastasis. Subsequently, the patient underwent left radical nephrectomy with left axillary lymph node clearance. Histopathological examination (HPE) of the resected specimen revealed clear cell carcinoma limited to the left kidney and the left axillary lymph node dissection specimen showed metastasis in only one of the fifteen lymph nodes.



(Table/Fig 1) Smear showing mildly pleomorphic tumor cells in sheets and acinar pattern.(MGG 20X)



(Table/Fig 2) Smear showing round to oval nucei and delicate cytopl9asm. (MGG 40X)

Discussion

Renal cell carcinoma represents about 1% to 3% of all visceral cancers and accounts for 85% of renal cancer in adults. It can occur at any age, with peak incidence in the sixth and seventh decade. Classical symptoms like triad of haematuria, hypertension and palpable mass which is seen in advanced renal carcinoma, is now rarely found. With the advent of improved radiological investigations, asymptomatic kidney tumours are diagnosed early**.** RCC can metastasise anywhere, the majority occur in the subsequent 5 years of initial diagnosis and frequency metastasis is high in the advanced stages. Approximately one third of renal cell carcinomas are found to invade the perinephric fat and/or regional lymph nodes at the time of operation. Similarly, one third of patients already have distant metastases at the time of presentation [2]. The most common sites of distant metastases are lungs and skeleton. Metastasis can also develop in the adrenal gland, liver, skin, soft tissue, central nervous system, ovary etc. Certain unusual sites of metastasis include the nasal cavity, the oral cavity, the larynx, the parotid gland, thyroid, heart, bladder, testis, prostate and the pituitary gland [2]. Though involvement of a distant lymph node like the axillary lymph node is usually seen with widespread systemic metastases[3],[4], solitary Involvement of metastasis is quite rare. Manikandan et al have reported a case of renal adenocarcinoma presenting as a groin mass5. This may be due to the involvement of the renal sinus (the adipose tissue compartment located *within the confines* of the kidney and containing numerous veins and lymphatics), a fact that theoretically should increase the risk for metastatic spread [2].

FNAC is one the most valuable tests available in the initial assessment of a patient who presents with a palpable mass. It is accurate, inexpensive and quick, with a fairly good amount of accuracy.

The presence of a heterogenous cell population, small cytoplasmic vacuoles and

a low nuclear-cytoplasmic ratio aids in differentiating conventional RCC from other morphologically similar entities such as hepatocellular carcinoma.

The resection of solitary metastases improves the survival rate, while the presence of multiple metastases indicates worse prognosis [1],[7] .

Conclusion

Axillary lymph node metastasis, an uncommon site for distant metastasis, as a first clinical sign leading to the diagnosis is rare. FNAC and improved radiological investigations help in detecting the primary tumour in metastatic carcinoma. Complete resection of solitary metastases from RCC is justified and can contribute to a long term survival.

References

[1] ThyavihallyB,MahantshettyU,ChamarajnagarRS,RaibattanavarSG,TongaonkarHB.Management of renal cell carcinoma with solitary metastasis World J Surg Oncol 2005:3:48.
[2] Nelson GO, Juan R. Kidney, renal pelvis and ureter, bladder. In: Juan R, Editor. Rosai and Ackerman's Surgical Pathology. Ninth Edition. Missouri: Mosby; 2004.p1261.
[3] Johnsen JA, Hellsten S. Lymphaogenous spread of renal cell carcinoma: An Autopsy study. Urol 1997; 157:450-3.
[4] Jaffer S, Zakowski M. Fine needle aspiration biopsy of axillary lymph nodes. Diagn.Cytopathol. 2002; 2:69-74.
[5] Tabatabai ZL,Staerkel GA.Distinguishing pimary and metastatic conventional renal cell carcinoma from other malignant neoplasms in fine needle aspiration biopsy specimens. Arch Pathol Lab Med 2005;129:1017-21.
[6] Ljunberg B, Landberg G, Alamdari FI. Factors of importance for prediction of survival in patients with metastsatic renal carcinoma, treated with or without nephrectomy. Scand J Urol Nephrol.2000; 34:246-51.
[7] Manikandan R,Dorairajan LN,Kumar S,Tripati P,Murugan P,Basu D. Renal adenocarcinoma presenting as a groin swelling-a case report. Indian J Surg.2008; 70:194-6