Case Report

Indian Journal of Cancer Education and Research
Volume 6 Number 2, July - December 2018
DOI: http://dx.doi.org/10.21088/ijcer.2321.9815.6218.7

Vaginal And Bone Metastasis with Retroperitoneal Lymphadenopathy From Renal Cell Carcinoma: A Very Unusual Presentation

Surabhi Gupta[1], Laxman Pandey[2], Pooja Agarwal[3], Ankur Mudga[4]

Author's Affiliation: [1]Professor [4]Junior Resident, Dept of Radiotherapy, [3]Associate Professor, Department of Pathology, Sarojani Naidu Medical College and Hospital, Agra, Uttar Pradesh 282003, India. [2]Senior Resident, Department of Radiotherapy, Shri Ram Murti Smark Institute of Medical Sciences (SRMS IMS), Bareilly, Uttar Pradesh 243001, India.

Corresponding Author: Surabhi Gupta, Professor, Dept of Radiotherapy, Sarojani Naidu Medical College and Hospital, Agra, Uttar Pradesh 282003, India

E-mail: mttsurabhi@rediffmail.com

Received on 09.07.2018, **Accepted on** 09.08.2018

Abstract

At diagnosis approximately 45% of renal cell carcinoma presents with localized disease, 25% with locally advanced disease and 20-30% with metastatic disease. Mostly these tumors metastasize to lung, soft tissue, bone, liver and brain. Vagina is very unusal site of metastasis from RCC. The aim of presenting this case is the rarity of this type of presentation and to give emphasis that targeted therapy provides an extended survival along with improving quality of life of patient.

Keywords: Renal Cell Carcinoma, Vaginal Metastasis, Targeted Therapy.

Introduction

Renal cell carcinoma represents 85% of kidney cancers. Histopathologically 75% are clear cell, while papillary RCC and chromophobe RCC present 11% and 5% respectively. At diagnosis, 45% of cases present with localized disease, 25% with locally advanced disease and 20-30% with metastatic disease [1]. Furthermore, over 30% of patients who initially present with localized disease will develop metastasis [2]. Mostly these tumours metastasize to lung, soft tissue, bone, liver and brain. Most cases of vaginal secondaries represent primary from the cervix, endometrium, and ovary or colon cancer. Metastasis of renal cell carcinoma to the vagina is extremely rare.

We report a case of renal cell carcinoma who presented to us with vaginal, bone (tibial shin) metastasis with retroperitoneal lymphadenopathy after nephrectomy.

The aim of presenting this case is the rarity of this type of presentation and to give emphasis on the thorough workup of a case of renal cell carcinoma and for use of the targeted therapy in such cases as it provides an extended survival along with improving quality of life.

Case Report

We present a case of metastatic renal cell carcinoma in a 40-year-old woman,who presented to us in March 2014 after post-nephrectomy recurrence. Her rt nephrectomy was done in august 2013. Patient presented to us with chief complains of bleeding per vaginum, diffuse pain in abdomen, right lower leg pain and on and off fever. Her per vaginal examination revealed a haemorrhagic cystic vaginal mass of app. sized 3X 3cm and a small nodule of 3X2 cm over the shin of right tibia.

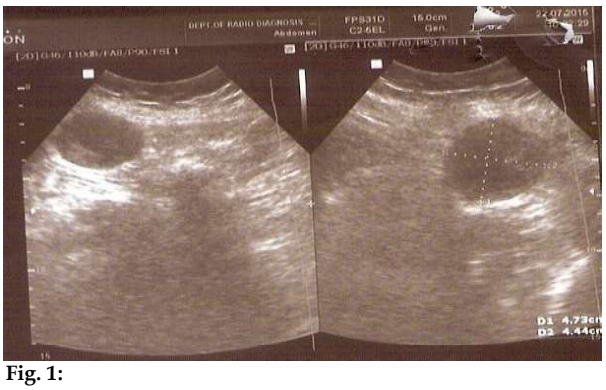

Fig. 1:

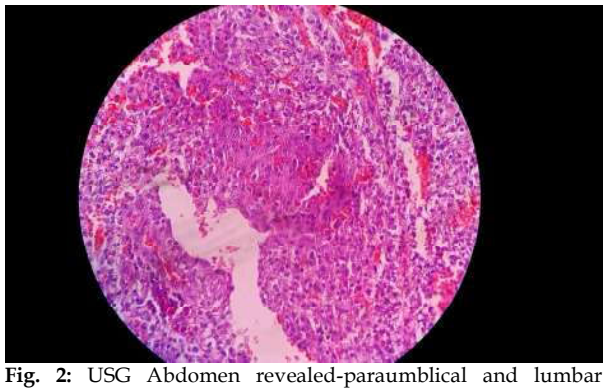

Fig. 2: USG Abdomen revealed-paraumblical and lumbar adenopathy of size 5.6 X5.1cm and another of 5.5X4.1 cm.

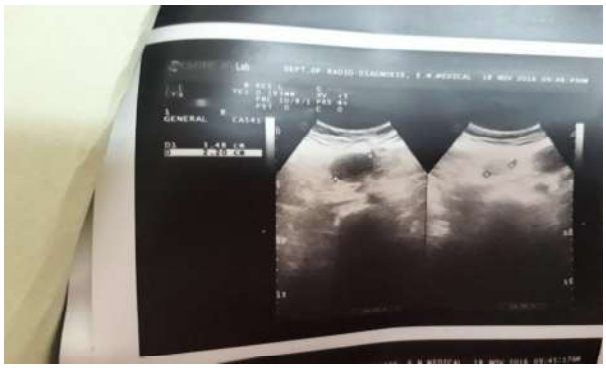

Fig. 3: Biopsy from vaginal growth showed clear cell carcinoma suggestive of metastatic deposit of RCC.

Fig. 4:

In view of wide spread metastatic lesions patient was kept on oral chemotherapy that is on tab sorafinib 200mg 1 BD and USG abdomen (7/10/14)- revealed supraumblical, rt paraumblical, rt infraumblical mass of size 12x7.5cm, 7.6x6 cm and 4x4 cm respectively suggesting of peritoneal metastasis indicating progressive disease. Then pt was kept on tab sunitinib 37.5mg OD for 21 days with 1 wk off. On per vaginal examination dated 12/2/16, no cyst was palpable and paraumblical mass also reduced in size. On USG abd dated 12/2/16—mass size was 3.98 x4.06 cm and 3 x2.37 cm in omental region.

Pt was continued on tab sunitinib 37.5 mg per day with 2 wk on and 2 wk off schedule and on USG abd dated 22/8/16 - size of lumps were 3.9 x 3.2cm and 2.6 x1.9cm. On latest USG abdomen dated 1/6/17-two heterogenous hypoechoic lesions of size 3.25 x 3.6 cm and 1.8 x 2 cm seen in omentum with internal echoes in rt paraumblical and supraumblical region.

Patient is still on tab sunitinib 37.5mg daily with 2 wk off and on schedule with good subjective and objective response with no fresh complains

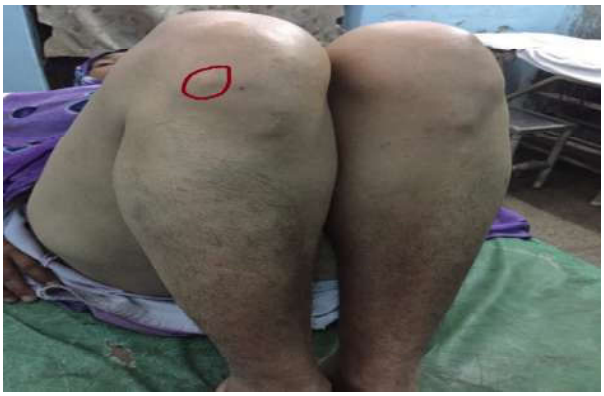

Fig. 5:

Discussion

Clear cell carcinomas comprise the largest number of kidney cancers in clinical practice (75-80%). About one third of the patients with RCC have haematogenous metastasis at the time of diagnosis and in 25% metastasis occurs after radical nephrectomy. The most frequent sites of metastasis include: lung (50%), bone (30%), liver (30%), brain and thyroids (25%) [3].

The progress of disease is not predictable. In 25-30% of cases there are metastases at the time of diagnosis or a short time afterwards. In 20-50% of patients there is a recurrence after radical nephrectomy [4]. Metastasis may occur in any organ [3]. The mean time of recurrence after nephrectomy is 15 months and in 85% of cases it is 3 years [5].

Jay E Allard et al. reported the first case of metastatic renal cell carcinoma presenting as vaginal metastasis with thrombocytopenia as a paraneoplastic manifestation [6]. Metastasis to bone from RCC is common, ranging from 30% to 40% [5]. Pain from bony lesions is likely to produce high baseline analgesic requirements. It is important to be aware of any pre existing pathologic fractures, and, given that there is a potential for further fractures peri operatively, positioning should be meticulous.

Approximately 15% of bone metastases from RCC are in the spine. Cord compression occurs in 5% to 14% of cases [7]. H. Ovesen et al reported a case of renal clear cell carcinoma in which metastasis to vagina occurred before the primary diagnosis of tumour was established and concluded that renal clear cell carcinoma is a tumour with an unpredictable behaviour [8]. With a cytological diagnosis of vaginal clear cell carcinoma metastatic RCC become a strong differential diagnosis and should always be excluded before treatment [9]. Our patient presented with simultaneous recurrence in vagina and tibial shin which is very unusual site for bony metastasis and not reported in any literature. Usually multiple site metastasis is not common in RCC. Our patient also presented with retroperitoneal lymphadenopathy so metastatic RCC has tendency for both haematogenous as well as lymphatic dissemination. RCC is largely refractory to cytotoxic agents [10]. Before the era of VEGF-targeted therapy, systemic treatment for advanced RCC was mainly limited to cytokine therapy with interleukin-2 (IL-2) or interferon-alpha (IFN-α), both of which effected objective responses, but in a small proportion of patients these agents were also associated with significant toxicities [11]. Sunitinib in mRCC patients was found to result in a significant reduction in Myloid Derieved Supressor Cells [12]. which are usually increased in RCC patients and represent a mechanism by which tumours induce T-cell suppression. This MDSC reduction was correlated with reversal of type-1 T-cell suppression as well as a reversal of T-regulatory cells elevation [13]. Immune suppression which includes a shift from a type-1 to a type-2 T-cell cytokine response and an enhanced T-regulatory cell expression has been reported in patients with mRCC. It has been shown that both can be reversed by sunitinib [12]. Our patient is doing well with tab sunitinib 37.5 mg since 3.5 years.

Conclusion

This case is a clear example of how unpredictable is the clinical presentation of this disease and require through examination and workup of patients and targeted therapy can give a better and longer overall survival to the patient with improvement of quality of life.

Financial support and sponsorship - Patient is getting tab sutent free of cost from V-Care foundation, Mumbai with Pfizer pharmacology support.

Conflict of interest: Nil

References

1. National Cancer Institute. SEER cancer statistics fact sheet: cancer of kidney and renal pelvis. Http:// seer.cancer.gov/csr/1975_2006/index. Html (Accessed October 2011).
2. Flanigan RC, Campbell SC, Clark JI, Picken MM. Metastatic renal cell carcinoma. Curr. Treat. Options Oncol. 2003;4(5):385-90.
3. Dieckman, KP, Due, W, Loy, V, Intrascrotal metastasis of renal cell carcinoma. Eur Urol 1988; 15;297-301.
4. Flanigan RC, Campbell SC, Clark JI et al: Metastatic renal cell carcinoma. Curr Treat Options Oncol 2003;4;385-90.
5. Motzer RJ, Bander NH, Nanus DM. Renal-cell carcinoma. Neth J Med 1996;335:865-73.
6. Jay E Allard, John W McBroom, Christopher M Zahn, David McLeod, G Larry Maxwell. Vaginal metastasis and thrombocytopenia from renal cell carcinoma. Gynaeoncol, 2004 March;92(3):970-73.
7. Papac, R.J., Poo-Hwu, W-J. Renal cell carcinoma: a paradigm of lanthanic disease. Am. J. Clin. Oncol. 1999;22:223–31.
8. Ovesen, H., Gerstenberg, T. Vaginal metastasis as the first sign of renal cell carcinoma: a case report and review of the literature. Scand. J. Urol. Nephrol. 1990;24:237–38.
9. Queiroz, C., Bacchi, C.E., Oliveira, C., Carvalho, M., Santos, D.R. Cytologic diagnosis of vaginal metastasis from renal cell carcinoma: a case report. Acta Cytol. 1999;43:1098–1100.
10. Mc Dermott DF, Regan MM, Clark JI, Flaherty LE, Weiss GR et al, Interferon-alpha and survival in metastatic renal carcinoma: early results of a randomised controlled trial; J Clin Oncol. 2005 Jan 1;23(1):133-41.
11. Gordon MS, Sosman JA, Ernstoff MS, Tretter CP et al, Randomized phase III trial of high-dose interleukin-2 versus subcutaneous interleukin-2 and interferon in patients with metastatic renal cell carcinoma.; Lancet. 1999 Jan 2;353(9146):14-7.
12. Ko JS, Zea AH, Rini BI, Ireland JL, et al, Sunitinib mediates reversal of myeloid-derived suppressor cell accumulation in renal cell carcinoma patients; Clin Cancer Res. 2009 Mar 15;15(6):2148-57.
13. Kusmartsev S, Su Z, Heiser A, Dannull J et al, Reversal of myeloid cell-mediated immunosuppression in patients with metastatic renal cell carcinoma; Clin Cancer Res. 2008 Dec 15;14(24):8270-8.