

METASTATIC RENAL CELL CARCINOMA; VAGINAL BLEEDING AS A PRESENTATION

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ABSTRACT.Background: Approximately 30% of patients with renal cell carcinoma present with metastatic disease at the time of diagnosis. Metastasis of renal cell carcinoma to the vagina is rare. **Case:** A 61 year-old female presented with a vaginal lesion, which was excised and diagnosed as metastatic clear cell carcinoma. A workup further is done. Radiological studies revealed a left renal mass; A subsequent nephrectomy confirmed renal cell carcinoma. **Conclusion:** Renal cell carcinoma must be in the differential diagnosis of a vaginal clear cell neoplasm in a postmenopausal woman.

Key Words: Vaginal cancer; Renal cell carcinoma; Metastasis

INTRODUCTION

Approximately 30% of patients with renal cell carcinoma present with metastatic disease at the time of diagnosis¹. Although less than 80 cases of vaginal metastasis from renal cell carcinoma have been reported^{2,3}, Primary adenocarcinoma of the vagina comprises 9% of all vaginal neoplasms⁴. Therefore, adenocarcinoma of the vagina should be considered metastatic until proven otherwise. Metastatic adenocarcinoma of the vagina may develop from the cervix, endometrium, colon, or ovary in approximately 65% of cases. Less frequently the primary tumor originates from the pancreas, stomach, or kidney⁴.

CASE PRESENTATION

We describe a case of a 61-year-old woman presented with a 1-month history of vaginal bleeding. Clinical examination revealed an actively bleeding superficial 1 cm × 2 cm lesion located on the info posterior vaginal wall. Biopsy demonstrated a clear cell carcinoma (Fig 1,2,3). Based on this pathological information and

microscopic hematuria referable to the kidneys, radiological evaluation was recommended. Abdominal CT-scan revealed a mass in the left kidney (Fig 4). Brain CT and bone scan were normal. A metastatic survey, including bone scan and chest CT, revealed no evidence of disseminated disease. Left radical nephrectomy was performed via a thoracoabdominal approach. Examination of the tumor revealed renal cell carcinoma of the clear cell type that was histologically similar to the vaginal lesion. No evidence of perinephric disease was found and the surgical margins were clear.

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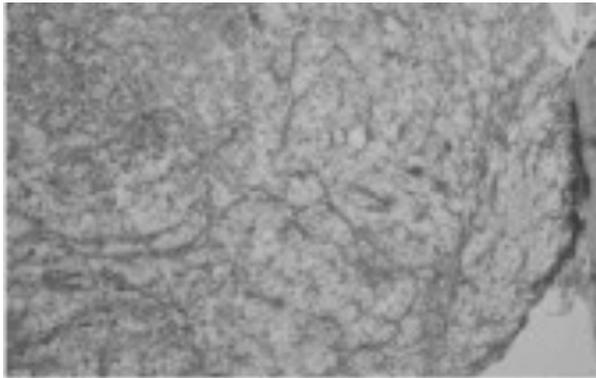


Fig-1. Prominent delicate vasculature surrounding alveolar cluster of cells; (*100)

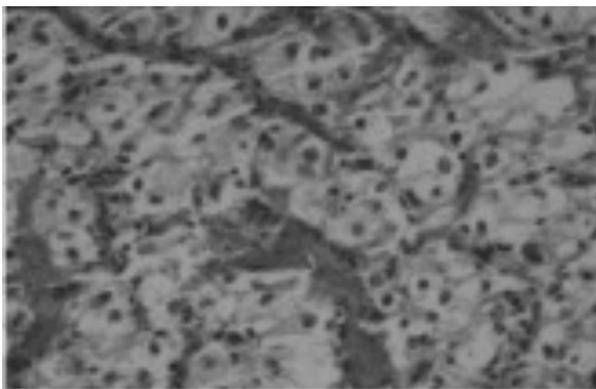


Fig-2. Clear cytoplasm of carcinoma cells. (*400)

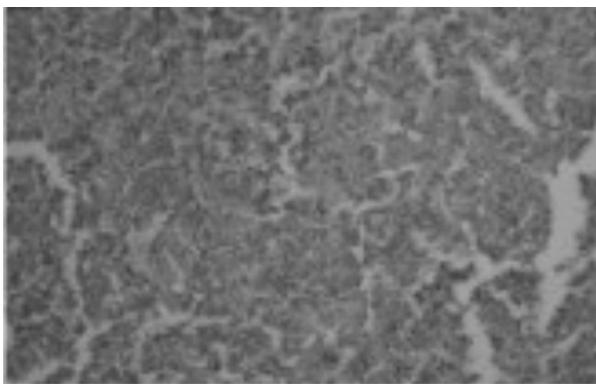


Fig-3. Immunoreactivity for vimentin in carcinoma cells. (*100)

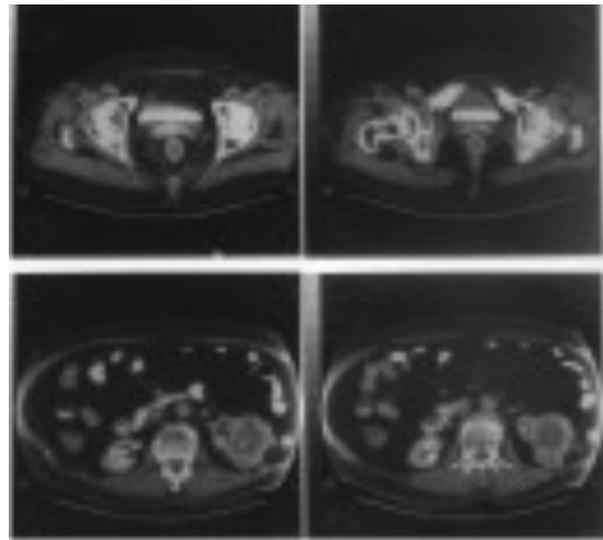


Fig-4. Abdominal computed tomography scan show a solid cystic mass in the left kidney with

DISCUSSION

Vaginal cancer represents approximately 1–2% of genital tract malignancies. Most cases represent metastasis from the cervix, endometrium, or colon. Metastasis of renal cell carcinoma to the vagina is extremely rare.

Primary clear cell adenocarcinoma typically develops in young patients previously exposed to diethylstilbestrol (DES) in uterus. Secondary clear cell adenocarcinoma occurs mainly in older, postmenopausal women and typically represents metastatic disease⁵. In the majority of these cases, the vaginal lesions were discovered before the detection of the primary renal tumor, and were most commonly manifested as vaginal bleeding. In the setting of cases of vaginal metastasis of renal cell carcinoma, the vaginal lesion is solitary and located in the lower third of the anterior wall of the vagina^{6,7}, but the lesion of our patient is located in posterior wall of the vagina. Interestingly, when vaginal metastases are present, the renal lesion is typically on the left side. Many of these patients have no other symptoms that suggest a primary renal cell tumor⁸. Secondary to the female genitalia from renal tumor arise through retrograde spread from the renal vein along the ovarian vein. The

connection between the ovarian vein and the pampiniform plexus causes the metastases in the upper portion of the vagina. There may be anastomoses between the pampiniform plexus and the obturator vein, which in turn receives branches from the external genital veins, and this explains the metastases in the lower portion of the vagina and vulva⁹.

CONCLUSION

Renal cell carcinoma presenting as vaginal metastasis is rare. Because of the histological similarity between clear cell renal carcinoma and vaginal mesonephric carcinoma as well as the absence of urological symptoms, we recommend that all patients with vaginal adenocarcinoma undergo radiological evaluation of the kidneys.

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REFERENCES

1. Tolia BM, Whitmore WF Jr. **Solitary metastasis from renal cell carcinoma.** J Urol 1975;114 (6): 836–8.
2. Allard JE, McBroom JW, Zahn CM, McLeod D, Maxwell GL. **Vaginal metastasis and thrombocytopenia from renal cell carcinoma.** Gynecol Oncol 2004;92(3):970-3.
3. Tarraza HM Jr, Meltzer SE, DeCain M, Jones MA. **Vaginal metastases from renal cell carcinoma: report of four cases and review of the literature.** Eur J Gynaecol Oncol 1998;19(1):14-8.
4. C.A. Perez CA, D.J. Gersell, W.P. McGuire and M. Morris, **Vaginal cancer.** In: W.J. Hoskins, C.A. Perez and R.C. Young, Editors, Principles and Practice of Gynecologic Oncology (Third ed.), Lippincott, Williams, and Wilkins, Philadelphia, PA (2000), pp. 811–840.
5. 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(3):237-8.
6. Papac RJ, Poo-Hwu WJ. **Renal cell carcinoma: a paradigm of lanthanic disease.** Am J Clin Oncol 1999;22(3):223-31
7. Queiroz C, Bacchi CE, Oliveira C, Carvalho M, Santos DR. **Cytologic diagnosis of vaginal metastasis from renal cell carcinoma. A case report.** Acta Cytol 1999;43(6):1098-100
8. Sogani PC, Whitmore WF Jr. **Solitary vaginal metastasis from unsuspected renal cell carcinoma.** J Urol 1979;121(1):95-7.
9. Abraham R, Thomas DR, Foster MC. **Vaginal bleeding as a presentation of metastatic renal cell carcinoma.** BJU Int 1999;84(3):384-5.

