

Case report

Gynecologic bleeding revealing vaginal metastasis of renal cell carcinoma

Zineb Benbrahim^{1,2,&}, Ali Chouaib³, Renaud Mazon¹, Marie Bénédicte Leger-Ravet⁴, Catherine Lefort⁴, Catherine Lhommé¹, Omar El Mesbahi², Bernard Escudier¹

¹Department of medicine, Gustave Roussy Institute, France, ²Department of Medical Oncology, Hassan II University Hospital, Morocco ,

³Department of urology, Tenon Hospital, France, ³Department of Pathology, Long Jumeau Hospital, France

[&]Corresponding author: Zineb Benbrahim, Department of medicine, Gustave Roussy Institute, France; Department of Medical Oncology, Hassan II University Hospital, Morocco

Key words: Gynecologic bleeding, vagina, metastasis, carcinoma

Received: 12/05/2011 - Accepted: 30/07/2012 - Published: 14/02/2013

Abstract

Vaginal metastases of renal cell carcinoma have been rarely described. We report a case of a 75-year old woman, who underwent radical right nephrectomy for a renal cell carcinoma. Tumour was classified pT3bN0M0 and grade III of Furhmann grading. One year later, scanner discovered mediastinal and lombo-aortic lymph nodes. She received 2 months of immunotherapy associated with bevacizumab, but stopped because of intolerance. She was readmitted in our institute for vaginal bleeding. Clinical investigations showed a vaginal mass and biopsy revealed a renal cell carcinoma metastasis. This case suggests that retrograde venous dissemination may be at the origin of vaginal metastasis of renal cell carcinoma and emphasized the preventive value of early ligation of renal vein.

Pan African Medical Journal. 2013; 14: 62. doi:10.11604/pamj.2013.14.62.838

This article is available online at: <http://www.panafrican-med-journal.com/content/article/14/62/full/>

© Zineb Benbrahim et al. The Pan African Medical Journal - ISSN 1937-8688. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

The vaginal metastases of the renal cancer are rare. Eighty five cases were reported in the literature. These secondary locations deserve a particular attention because their diagnosis often precedes that of the Renal Cell Carcinoma. We report the case of a woman who presented vaginal metastasis two years after nephrectomy for a Renal Cell carcinoma and we discuss the modes of dissemination of these metastases.

Patient and observation

A 75-year-old white woman, had history of fullness in the right upper quadrant, and a weight loss. On physical examination there was a large palpable mass in the right upper quadrant. Radiologic examination revealed tumor of right kidney measuring 14 x 8cm. A right nephrectomy was done through a long midline incision. The excised organ measured 15 x 9 x 6.5cm and weighed 660 g. The microscopic appearance was typical of renal cell carcinoma. The tumor was classified grade III of Furhman grading system and pT3b N0 M0 of the Union of International Cancer Control classification. Evolution has been marked by the occurrence of mediastinal and lombo-aortic lymph nodes. She received two months of targeted therapy (bevacizumab associated with interferon) that was stopped because of intolerance. At that time, disease was stable on CT scan and remained stable for almost one year. She was readmitted because of vaginal bleeding. On examination a 4 x 5 cm mass was found arising from the lower one-third of the vagina. A biopsy revealed uniform population of neoplastic cells with clear cytoplasm, atypical nuclei (**Figure 1** and **Figure 2**) and positive staining with KL1 and CD10 (**Figure 3**). Anatomopathologists concluded to a metastasis of renal cell carcinoma. External hemostatic radiotherapy was started delivering a tumor dose of 20 Gy in 6 cycles. Patient is still alive 6 months later with local control.

Discussion

Primary adenocarcinoma of the vagina comprises 9% of all vaginal neoplasms [1]. Therefore, adenocarcinoma of vagina must be considered as metastatic until the opposite is demonstrated [2]. This metastasis may develop from the cervix, endometrium, ovary, or colon in approximately 65% of cases [3]. Secondary localisations from the pancreas, stomach, and kidney are even less common [4]. The first description of vaginal metastasis from renal cell carcinoma was reported in 1906 [5]. In 2003, Mendese had reviewed 85 cases of these tumors. Median age at diagnosis was 57 years (average 14-88). Clinical presentation in 65% of cases was vaginal leaking, haemorrhage, or mass effect. The vaginal lesion size ranged from 0.5 to 8 cm. Renal cell carcinoma vaginal metastasis usually preceded and rarely came after the diagnosis of renal tumor. In 63 % of cases, primary location of tumor was left kidney. Usually metastasis is solitary. It appears at the same side of primary tumor and is usually located in the lower third of the anterior wall of the vagina [6]. The most important prognostic factor in patients with vaginal metastasis is the presence or absence of other secondary localisations. Moreover, patients with metachronous metastasis present longer survival than those with synchronous metastasis. Median survival of all types confounded is 19 months (range 1- 96) [4,6,7].

Several pathways (urinary, lymphatic and systemic) were evoked at the origin of vaginal implantation of renal carcinoma. However, the only one having been demonstrated is the venous retrograde way.

Movedcahy and Furlow objectified radiologically flux between the renal vein and the genital vein at several patients with renal cancer and vaginal metastasis [8].

Conclusion

This observation suggests the interest of early ligation of genital vein during nephrectomy to limit migration of neoplastic cell and prevent gynaecologic metastasis.

Competing interests

The authors declare no competing interests.

Authors' contributions

All the authors have contributed to this case report in ways that comply to ICMJE authorship criteria. All the authors have read and approved the final version of the manuscript.

Figures

Figure 1: neoplastic cells in deep chorion (HE x25)

Figure 2: neoplastic clear cells (HE x 250)

Figure 3: immunoreactivity of neoplastic cells for CD10 (x250)

References

1. Perez CA, Gersell DJ, McGuire WP, Morris M. Vaginal cancer. In: Hoskins WJ, Perez CA, Young RC, editors. Principles and Practice of Gynecologic Oncology. Third ed. Philadelphia, PA: Lippincott, Williams, and Wilkins; 2000. p. 811- 40.
2. Osório L, Sabell F, Soares J et al. Vaginal metastasis of a renal cells carcinoma. *Actas Urol Esp.* 2008;32(6):653-655. [PubMed](#) | [Google Scholar](#)
3. Allard JE, McBroom JW, Zahn CM, McLeod D, Maxwell GL. Vaginal metastasis and thrombocytopenia from renal cell carcinoma. *Gynecol Oncol.* 2004 Mar;92(3):970-3. [PubMed](#) | [Google Scholar](#)
4. Mendese GW, Ayvazian PJ, Li C. Renal cell carcinoma presenting as a perineal mass: case report and review of the literature. *Urology.* 2006 Apr;67(4):847.e1-2. [PubMed](#) | [Google Scholar](#)
5. Peham I. Hypernephrom der linken Niere miteiner Metastase in der Vagina. *Zentralbl. Gynakol.* 1906; 30: 724-725. [PubMed](#) | [Google Scholar](#)
6. Saussine C, Delepaul B, Jacqmin D. Métastase vaginale du cancer du rein. *Progrès en Urologie.* 1994; 4:95-97. [PubMed](#) | [Google Scholar](#)
7. 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. [PubMed](#) | [Google Scholar](#)

8. Mulcahy JJ, Furlow WL. Vaginal metastasis from renal cell carcinoma: radiographic evidence of possible route of spread. *J Urol.* 1970 Jul;104(1):50-2. [PubMed](#) | [Google Scholar](#)

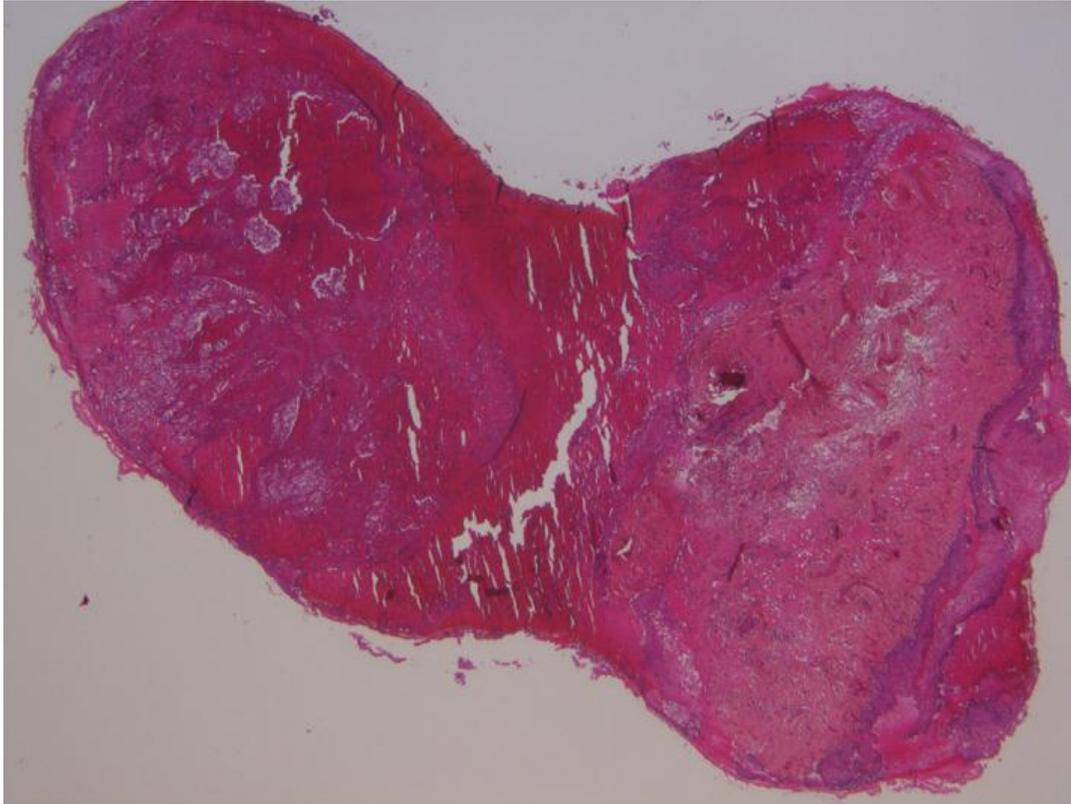


Figure 1: neoplastic cells in deep chorion (HE x25)

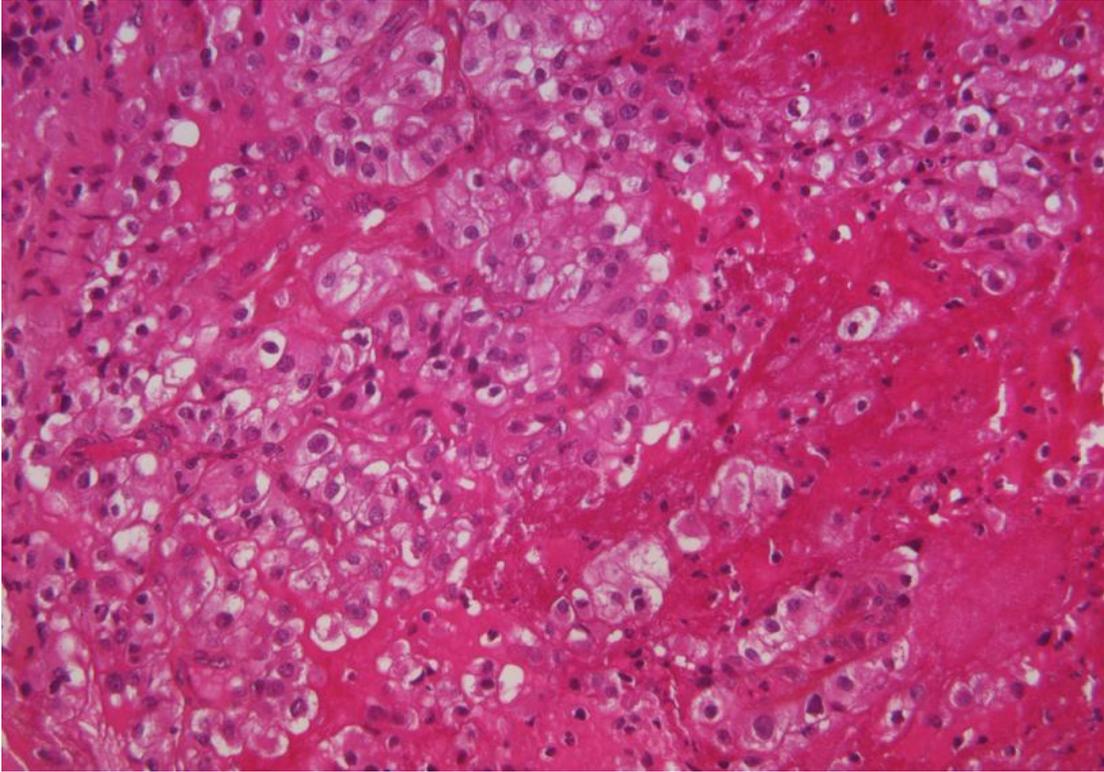


Figure 2: neoplastic clear cells (HE x 250)

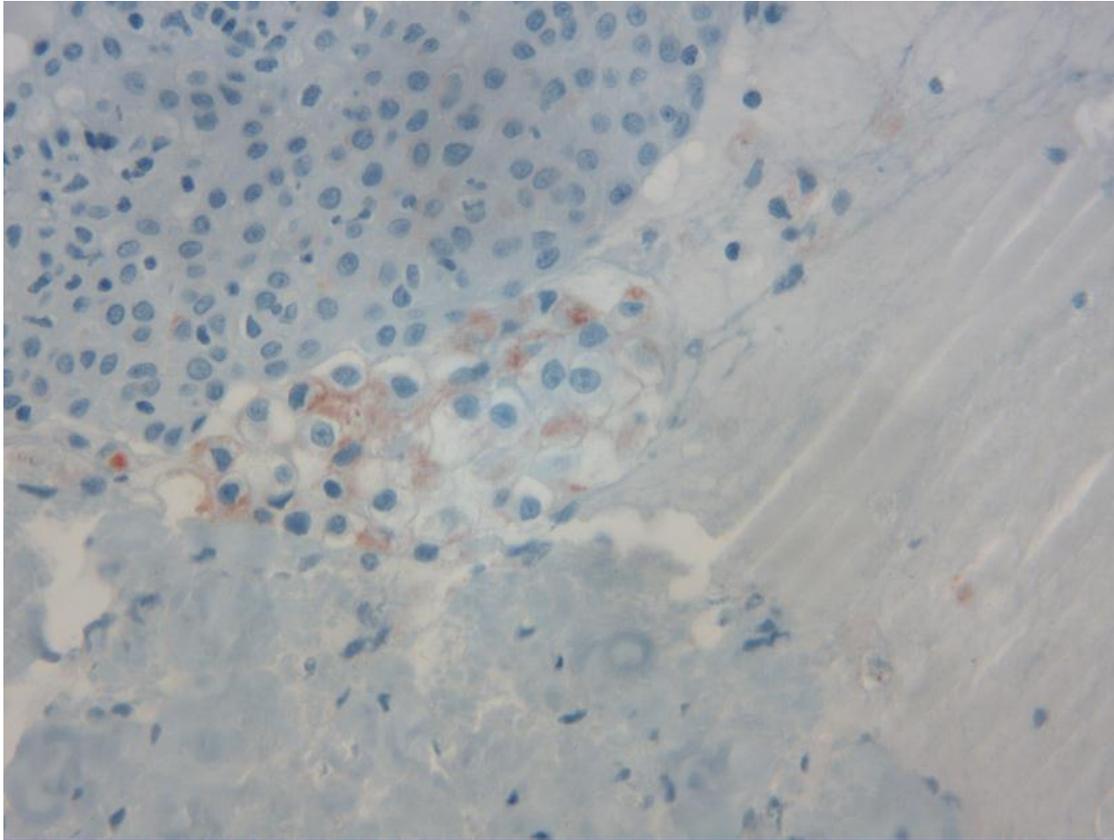


Figure 3: immunoreactivity of neoplastic cells for CD10 (x250)