Oncology

Metastasis of renal cell carcinoma to the vocal cord ten years after radical nephrectomy: A case report

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A B S T R A C T

Renal cancer is a common neoplasm in the genitourinary tract. It characterized by unpredictable site and duration of metastasis. Distant metastases are common and may involve any region of the body. It spread in a way that is not clear. Late metastasis could occur even after complete resection of the tumor. An extended follow-up is advised to deal with the risk of delayed metastases.

Introduction

Renal cancer characterized by metastasis to usual sites like chest, intestines, and brain. The occurrence of RCC metastasis to the head and neck region is uncommon; it occurs in patients with widespread dissemination. There are many reports of late metastases from RCC even decades after surgical excision of the primary tumor. Metastatic disease may be present in up to 25% of patients at the time of diagnosis, while another 50% develop metastasis during follow-up.

Case report

A 74-years-old man with a history of left side radical nephrectomy ten years ago, due to asymptomatic solid lesion of 7 cm in his left kidney. The pathologic examination was consistent with papillary type RCC (T1N0M0). Presented with a history of voice changes for two months duration, he consulted otolaryngologist and was found to have a 4 mm polyoidal mass lesion on his right vocal cord. With general anesthesia applying direct laryngoscopy, he underwent complete resection of the mass, and no tumor remnant was visible following the procedure. He felt well, and histopathology was reported as metastatic clear cell cancer. He was referred to a urologist for detailed imaging and laboratory investigations, including abdominal and chest computerized tomography (CT), PET scan done, and no tumor found.

Specimens were surgically obtained. The mass measured 4 x 4 mm. The tissue was fixed in 10% neutral-buffered formalin and then dissected. Following slicing with a microtome, routine hematoxylin and eosin staining were performed on the section before histopathological examination according to standard protocols.

Histopathological examination revealed squamous mucosa with an expansion of submucosa by epithelial cells arranged in small nests separated by fibrovascular stroma; the cells have clear cytoplasm and hyperchromatic nuclei with occasional prominent nucleoli and occasional mitosis (Figs. 1 and 2). Immunohistochemistry studies show positive AE1/AE3 and CD10 with diffuse intense cytoplasmic membrane staining of clear cells (Fig. 3).

Discussion

RCC is the third most common abdominal tumor to metastasize to the head and neck region after breast and bronchial carcinomas. Head and neck metastases are not familiar; only 8% to 15% of the overall head and neck metastasis cases associated with RCC. The nose, the tongue, the thyroid gland, and the parotid glands included in the reported cases.

Isolated vocal cord metastasis is a rare condition in RCC. Only one case has been reported with late metastasis to the vocal cord by Signe B. Nielsen et al. The tendency of RCC to metastases into the vocal cord are rare events in the clinical practice.

In our case, we present this rare site for metastasis that was anatomically distal to the kidney and has different pathways from the usual blood and lymphatic drainage of metastatic spread of renal tumors. There is no clear explanation for this sort of metastasis. Renal

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Cancer is well known to have regression of the metastasis after removal of the primary tumor. At the beginning these isolated tumors are small painless and hence may go unnoticed. Later on when it grows it can manifest as speech, cough and breathing difficulties due to its location inside the airway.

In summery isolated renal cell cancer can metastasis anywhere in the body; no site is immune. The time interval for metastasis is unpredictable with the stage of cancer, for that extended followup is advisable for renal cell cancer for early detection.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.eucr.2019.101059.

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Fig. 1. Mass 4 4 mm stained with hematoxylin and eosin x200.

Fig. 2. A tumor is manifesting an alveolar pattern separated by long, thin vascular structures formed by uniform, round cell nuclei with granular cytoplasm (hematoxylin and eosin stain 400).

Fig. 3. Immunohistochemically membranous CD-10 positivity of the tumor cells.