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Case Report

A very rare case report:Renal cell carcinoma metastasizing to the tonsil after 5 years of radical nephrectomy

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Abstract : Renal cell carcinoma (RCC), is the most common kidney cancer, that accounts for approximately 90% of all adult renal malignancies with 30% of patients presenting with metastasis at initial diagnosis.There are several reports of metastases developing after 10 to 20 years even if curative nephrectomy has been carried out. Clear cell (60%-75%), papillary (10%-15%), chromophobe (5%), and collecting duct carcinoma are well characterized subtypes of RCC.Renal cell carcinoma mainly metastasizes to the lungs,the bones,the liver,the lymph nodes and brain.Metastasis to the head and neck region is rare.In this case report we present a tonsil metastasis after 5 years of nephrectomy.Histopathological examination confirmed after surgery that metastasis of clear cell carcinoma.The patient was successfully treated by surgical intervention and referred to oncology.Later,he was discharged from urological point of view.

1.Introduction

Renal cell carcinoma accounts for %2.4 of total cancer patients worldwide [1]. In primary,approximately %30 of patients with renal cell carcinoma have distant metastasis at initial diagnosis.Renal cell carcinomas metastasis are mostly to the lungs,bones,lymph nodes,liver,adrenal and brain respectively [2]. Head and neck metastases are very rare possible locations of parotid gland,thyroid,paranasal sinuses and skull.

Until, now there are only a few cases published about tonsillar metastasis due to renal cell cancer.Additionaly,tonsillar metastasis are very rare.Malignant melanoma,renal cell carcinoma and lung carcinoma have been described as the most common primaries of tonsillar metastases [3].

2.Case report

In October 2018, 63 year old man admitted to our department due to pharyngodinia and dysphagia for two months.He had used antibiotics before our physical examination.

He had right nephrectomy history due to renal mass in right kidney.In May 2013, he had radical nephrectomy because of 9.5 cm renal mass arising from upper pole of right kidney.

The pathology was clear cell carcinoma invading perinephritic adipose tissue and renal vein with Fuhrman nuclear grade 3.There was one reactive lymph node in hiler region, TNM classification of T3N1M0.

Pharyngoscopy revealed an exophytic,grayish and edematous mass on the right tonsil(Fig.1).Because of the patient's general health, we have decided to perform right tonsillectomy.Complete surgical excision was performed which revealed metastatic RCC (fig 2) and (fig 3).

Figure 1. Pharyngoscopy is showing 3x2.5x1.3 cm mass in the right tonsil.

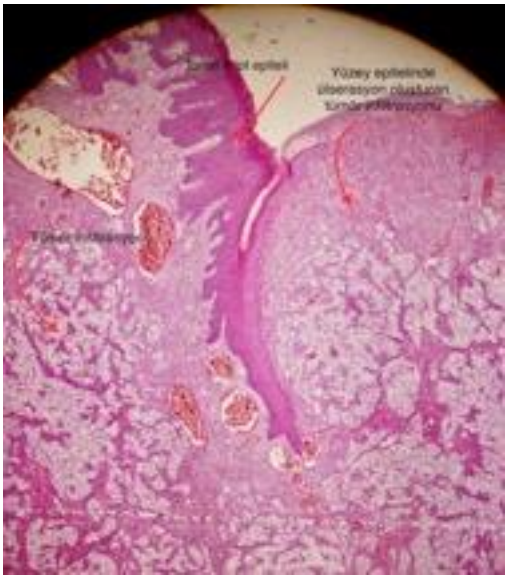

Figure 2. Microscopic examination of the specimen shows tumour infiltration below tonsil crypt epitelyum(H&E X40)

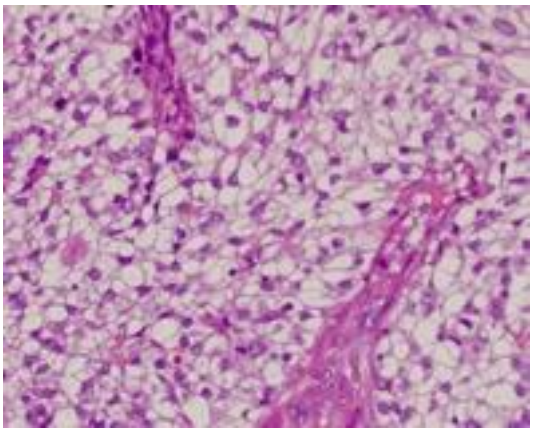

Figure 3 Clear tumour cells with centrally located nuclei and accompanied capillary vessels

3.Discussion

RCC comprises %3 of all the total cancer patients globally.Because of the kidney's position, it usually remains asymptomatic.Only %10 of the patients display the classic triad of symptoms of flank pain,macroscopic hematuria and palpable abdominal mass. %30 of the patients might have paraneoplastic symptoms such as anemia,hepatic disfunction,fever,hipercalcemia,amiloidosis,eritrositosis and cachexia [4].

Although it has been said that it's very rare in previous reports but RCC is responsible 8-15% of all cases of metastasis to the head and neck region [5].We have searched PubMed for tonsilar metastasis arising from RCC and found only 5 cases.Metastases to head and neck region usually occur from thyroid gland and upper aero-digestive tract.Among infraclavicular primary neoplasms, the kidney is the third after breast and lungs to metastasize to non-thyroid head and neck region.RCC is the most common malignancy to metastasize to the thyroid gland [6].

RCC can metastasize to head and neck region in multiple ways. After renal vein involvement, tumour cells can follow caval way to metastasize head and neck region after lung and liver metastasis.Without lung and liver involvement,tumour cells must have followed Batson's venous plexus. Batson's venous plexus communicates epidural and vertebral venous plexus directly to the pelvic veins, intercostal veins, the azygous vein and vena cava.So it easily spreads to head and neck region without lung involvement [7].If intraabdominal and intrathoracic pressures increase tumours cells can follow this way and by-pass the pulmonary capillar filtration.Apparently this explains the metastatic mechanism of our patient.

There is no common consensus on how to treat such patients.The treatment depends on characteristics of tumour and patient status.Such as performance status,patient's choice,risk factors,nature of metastasis [8].The treatment of such metastases include metastasectomy whenever possible and palliative chemotherapy,radiotherapy.Surgery is recommended as the first option of treatment if there is no other organ involvement.Tzyy et al. showed in their meta-analysis that complete metastasectomy from head and neck region has superiority to incomplete metastasectomy and no metastasectomy.The median overall survival was significantly higher in complete metastasectomy patients [8].

Although RCC is known radio-resistant tumour, metastatic patients can benefit from radiotherapy [9]. Radiotherapy can be used to control symptoms or to help facilitate surgical excision.

Although there is a good initial treatment, the 2 year survival rate is 41% and 5 year survival is only 13% [10].

4.Conclusions

Although metastatic renal cell carcinoma to the head and neck region is very rare, the physician should also check the unusual sites of metastasis during follow-up. Those patients who present with head and neck-related symptoms must be consultated with otolaryngologist.The physician should be aware of these type manifestations.

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