Mandibular Mass as an Only Presentation of Metatatic Renal Cell Carcinoma For Four Years: A Case Report

Shahram Gooran[1], Alimohammad Fakhr Yasseri[1], Negar Behtash[1]*, Arash karimi[1], Masoud Khalili[1], Mahboobeh Asadi[2]

Keywords: mandibular mass; metastasis; oral cavity; renal cell carcinoma.

Renal cell carcinoma is one of the most common tumors of the urinary tract. This tumor may appear as Para neoplastic syndromes or distant metastasis. Metastases in uncommon areas are one of the characteristics of renal tumors. One of the uncommon metastatic renal masses areas is the mandible. In different studies, patient survival after metastasis diagnosis is usually one year or less. In this study we introduce a patient with mass of the right mandible which existed four years before his referral, and in examinations it was diagnosed as metastasis with renal origin.

INTRODUCTION

Renal cell carcinoma is one of the most common tumors of the urinary tract. Metastasis to the oral cavity is very rare and constitutes less than 1% of neoplasms of this area. Extensive metastases to the mandible can be evaluated by CT and MRI, although in some cases a definitive diagnosis is not possible. However, biopsy is necessary to confirm the diagnosis in all cases[1-3].

Figure 1. Gross pathology of tumor

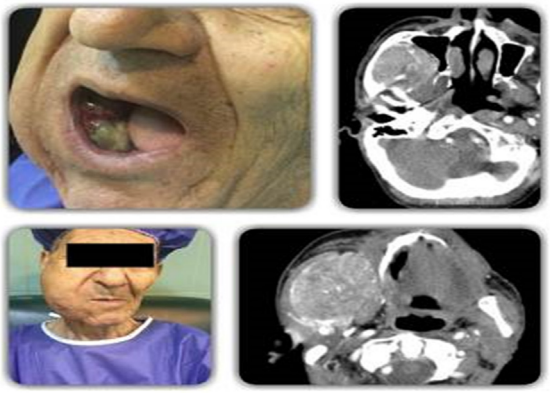

Figure 2. Mandibular tumor

CASE REPORT

The patient was a 74-year old man who complained of swelling in the right side of the face, fever, nausea and vomiting. Patient's nausea and vomiting and fever had started one month before his referral. But swelling of the right lower jaw started four years before referral and increased gradually. Also, the patient complained of difficult breathing in the past few months (**Figure 1**).

The patient mentioned no history of medical diseases, previous surgeries, occupational exposure and taking medications except using 30 packs of cigarettes per year. The patient had been using dentures for almost 10 years. He had referred to physician four years before referral due to pain and swelling of mandible and was diagnosed with inflammation and infections resulting from the dentures and received antibiotic therapy. Since the symptoms persisted after antibiotic therapy, the patient was advised to perform X-ray and lesion biopsy which the

[1]Urology Research Center, Sina Hospital, Tehran University of Medical Sciences, Hassan-Abad Sq., Tehran, Iran.

[2] Department of Otorhinolaryngology head and neck Surgery, Shahid beheshti University of Medical Sciences, Taleghani hospital,Tehran, Iran.

*Correspondence: Department of urology, Tehran University, Sina Hospital, Tehran, Iran.

Tel: +98 912 2361 163. Office: +98 21 6312 484 Email: negar_behtash@yahoo.com.

Received June 2016 & Accepted January 2017

Figure 3. Computed tomography of renal tumor

patient did not accept. After a few years, the patient referred to the clinic and mandibular lesion biopsy was performed. Pathology report was highly suggestive of metastatic carcinoma, clear cell type, most probably of renal origin. After IHC the primary source was revealed to be the kidney. CT scan with contrast injection of the head and neck, lungs, abdomen, and pelvis was done for the patient. A large hypervascular mass with thinning of the lateral wall of the right maxillary sinus and also destruction of mandible ramos and trunk were reported in the head and neck CT. An enhancing lesion with approximate dimensions of 33 × 33 mm in the lower left kidney bridge and also generalized osteopenia was reported in the abdomen and pelvis CT (**Figure 2**). In patient's bone scan, abnormal activity in the right mandible and right maxillary bones suggesting tumoral invasion, was reported. The patient underwent left radical nephrectomy. (**Figure 3**)

The final pathology reported unifocal clear cell RCC with no sarcomatoeid features and no lymphovascular invasion. The patient was referred to Otolaryngology Clinic again for mandible lesion resection. Since the lesion was extensive and non-respectable, the patient was introduced to oncologists for chemo-radiotherapy. Currently the patient is under chemo-radiotherapy.

DISCUSSION

RCC bone metastases are osteolytic metastasis and usually observed in axial bones specially T2 to L5. These metastases are often seen on the same side of the primary tumor[4]. Jaw invasions are usually detected in ages of 50-70[5]. Mandible trunk invasion is 4 to 5 times more common than maxillary bone invasion[2,6]. Mandibular metastasis is from renal origin in 16% of its metastasis[7-9] . Metastasis in oral soft tissue is associated with worse prognosis[10,11]. The majority of patients die one year after metastasis of head and neck while our patient had the history of lower jaw lesion four years before referral. Most researchers have accepted radical nephrectomy for limited disease and even for kidney tumor with distant metastases and believe that this therapeutic approach improves the quality of life and survival of these patients. In different studies with single metastasis of oral cavity, surgery after nephrectomy improved survival for two years (in 43% of patients) and 5 years (in 13% of patients)[12,13]. Although RCC is usually resistant to radiotherapy and chemotherapy, but using these therapies is recommended for the relief of metastatic lesions in the oral cavity. Researchers believe that using local radiotherapy may relieve patients' local symptoms for a short time[7,8]. Using chemotherapy (Interleukin-2, interferon-alpha and 5-fluorouracil) may be helpful in some cases[10]. In some studies, using immunotherapy after radical nephrectomy improves survival in patients with distant metastasis. In patients with synchronous metastases, cytoreductive nephrectomy and systemic immunotherapy has been more effective than immunotherapy alone[7].

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