



Unusual case of metastasis of urinary bladder Transitional cell carcinoma to the gingival

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Abstract

Metastasis to the oral cavity usually originates from the breast, lung or kidneys. Transitional cell carcinoma (TCC) of the urinary bladder rarely metastasizes to the gingiva. Here we present an interesting new case of gingival metastasis in a 65 year old male. The patient was in between treatment for recurrent urinary bladder cancer. He defaulted the same for three months due to personal reasons, and presented in the clinic with a left sided mandibular swelling. Clinical examination revealed left lower gingival lesion, the biopsy of which confirmed TCC.

Keywords: Oral cavity, Gingiva, metastasis, Transitional cell carcinoma.

Key Messages: In a patient with a known history of cancer, a gingival metastatic lesion although rare and an extreme possibility, has to be kept in mind.

Introduction

Oral cavity metastasis amounts to about 1% of all malignant oral cavity tumors^[1]. The most common primary sites include the breast, lung, and renal cell carcinoma^[2]. Transitional cell carcinoma is an inherently aggressive tumor with a high percentage of relapse rates. Metastasis to the oral cavity from urinary bladder is extremely rare and affect jawbones rather than soft tissues. Only four metastatic cases to the oral soft tissues (tongue, submandibular gland, upper alveolus, buccal mucosa) have been reported so far^[3]. We report on a patient who had metastatic transitional cell carcinoma in the gingiva from urinary bladder.

Case History

A 65 year old male patient, chronic smoker for the last 25 years, was investigated for hematuria in

1991. He was diagnosed to have low grade transitional cell carcinoma of the urinary bladder Stage II. He underwent radiation therapy followed by chemotherapy thereafter which he was completely symptom free for the next 19 years. In December 2009 he presented again with hematuria. A Radiological examination by ultrasonography showed the bladder wall to be thickened and a mixed echogenic - broad based growth approximately 6 cm by 7 cm with surface calcification, situated on the left posterior- lateral wall of urinary bladder and prostatic urethra. Cystoscopy confirmed the fore mentioned findings along with involvement of prostatic urethra. The patient underwent transurethral resection of the tumor. The histopathology confirmed Transitional cell carcinoma WHO grade II, with tumor involving the smooth

muscles. A metastatic workup was done which showed disease to be confined to the urinary bladder. The patient was advised to undergo radical cystectomy to which he refused. Hence he was put on salvage chemotherapy after repeat TURBT. He received 2 cycles of gemcitabine 1000mg/m² and carboplatin AUC 5 after which he defaulted for three and a half months due to financial constraints. Following thereafter he presented to the clinic with complaints of swelling left lower jaw, pain on chewing, excessive salivation with halitosis and occasional blood-tinged saliva since 15 days [Figure-1]. He was evaluated and diagnosed to have a mass lesion in left lower alveolus approximately 2x1.5cm in size [Figure -2]. The CT scan did not reveal any bony involvement [Figure -3]. A biopsy revealed nests of carcinomatous cells with papillary processes lined by transitional epithelium 10-12 cell thick. The cells were mildly pleomorphic and nuclear polarity was focally lost. Mitosis was occasionally seen. The overall picture was consistent with transitional cell carcinoma grade II [Figure-4]. The patient was planned and started on radiotherapy to the head and neck followed by completion of the previously started chemotherapy regimen. He was symptom free for two and a half years after which he developed multiple skeletal metastases and ultimately succumbed.



Figure 1: Obvious jaw swelling



Figure 2: Irregular mass lesion in left lower gingivo-buccal sulcus

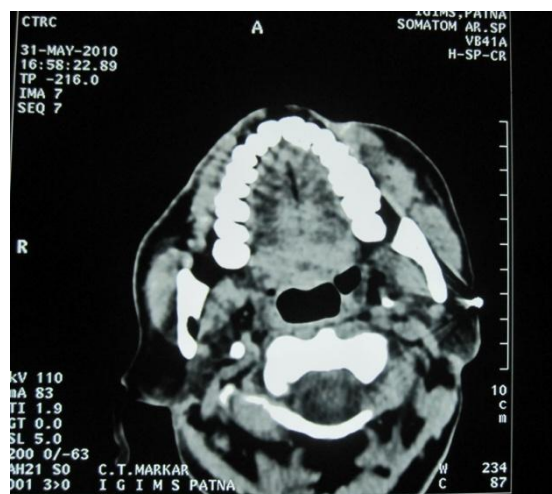


Figure 3: Radiological examination.

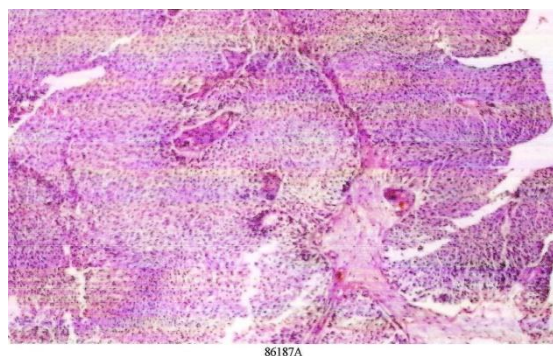


Figure 4: Histological features of transitional cell carcinoma

Discussion

The burden of urinary bladder cancer varies with estimates of approximately 383,000 cases worldwide^[4]. Usual sites of metastasis from TCC of the urinary bladder include lymph nodes (78%), followed by liver (38%) and lung (36%), bone (27%), adrenal (21%) and intestines (13%)^[5].

Metastatic tumors to the oro-facial region account for approximately 1-1.5% of all malignant oral tumors, with most of them effecting the jawbone. Metastasis to the oral cavity soft tissue from urinary bladder is extremely rare^[1]. Only four cases of cancer confined to the oral soft tissues with no bone involvement have been reported so far^[3]. The mode of spread to the head and neck region bypassing the abdomen and the thorax is not well understood. It has been postulated that tumor infiltration of the venous plexuses of the bladder and prostate may be implicated. These plexuses are thin walled, have very few valves and may be responsible for metastatic spread via the vertebral venous plexus to the head and neck region. Moreover the oral soft tissues have a rich network of capillaries which can entrap malignant cells^[6]. Metastasis of squamous cell carcinoma (sc) from oral cavity to urinary bladder has also recently been reported enforcing a probable site specific causal pathogenesis which needs to be studied further^[7]. The metastatic lesions of the oral soft tissues usually manifests as a sub-mucosal mass as was appreciated in our case; and very few cases present as ulcers^[8]. The probability of a second primary especially in the background history of smoking was borne in mind but was ruled out by biopsy and histopathology. The treatment of such lessions depends on many factors including the metastatic workup and the performance status. An oral metastasis usually implies a serious prognosis, as most patients present multiple organ involvement at the time of diagnosis, with the average survival time being a few weeks or months. However if the primary tumour is controlled and the patient's medical condition permits the metastatic disease should be aggressively treated so as to attain a reasonable symptom free interval. On review of literature we found the first case of TCC of urinary bladder which presented with an alveolar metastases was a 58 year old male of Indian origin with wide spread disease who survived for only 5 months^[8]. Whether this comparison holds any etiopathological significance is yet to be

ascertained. Moreover our patient had a substantial symptom free interval of approximately two and a half years enforcing the need of aggressive treatment.

Conclusion

In a patient with a known history of cancer, a gingival metastatic lesion although rare and an extreme possibility, has to be kept in mind. Careful clinical examination, histopathological investigations and immunohistochemistry techniques are required to rule out second primary lesion since the treatment and prognosis will likewise change.

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