Case Report

Metastasis of Renal Cell Carcinoma to the Buccal Mucosa 19 Years after Radical Nephrectomy

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Renal cell carcinoma (RCC) has high metastatic potential, which requires early diagnosis to optimize the chance of cure. Metastasis of RCC to the head and neck region is relatively uncommon and can be found in 8–16% of all cases [1–5], usually associated with lesions in other sites. The rich vascular structure of RCCs facilitates hematogenous extension and the development of distant metastases. The most important hematogenous extension route in RCC is the vena cava system, which leads to the lung. Metastatic tumours to the buccal mucosa generally present with nonspecific symptoms and signs. Surgical excision is considered the first line of treatment and the decision should be based on the evidence of other organs involvement, the patient's general condition [2, 4, 6], and the use of radiotherapy [3, 5] or antiangiogenic therapy [7].

In this paper, we report a rare case of metastasis to the buccal mucosa from an RCC that occurred 19 years after left radical nephrectomy.

2. Case Report

A 65-year-old otherwise healthy male patient presented to clinic with a sensation of discomfort in his left cheek. His past history is significant for left radical nephrectomy performed 19 years earlier for clear cell renal cell carcinoma with renal vein thrombosis (pT3aN0M0), and there were no other sites of disease evident upon current presentation. Computed Tomography scan detected a 10 mm × 8 mm mass suggestive of malignant lesion in the left buccal mucosa (Figure 1) which was then surgically removed. Pathological examination showed metastatic clear cell renal cell carcinoma with clear excision margins. After 6 years of clinical followup and serial radiological controls, the patient showed no signs of local recurrence or new metastatic lesions.

3. Discussion

RCC represents 3% of all adult malignancies [3, 5]. Male to female ratio is 1.5:1 and it is more frequently diagnosed during the fifth and sixth decades of life [5]. RCC is the most common malignancy of the kidney [3, 8] and represents approximately 90% of malignant renal tumours in adults [2]. Kidneys receive approximately 25% of the cardiac output therefore highly vascular renal tumours like RCC have a high metastatic potential [1]. The most common sites for RCC metastasis are the lungs, regional lymph
of the lung parenchyma, which would not be visible on routine chest radiographs [5, 6]. Another possibility is that a microscopic metastatic lesion might start to grow rapidly, with a consequent decrease in host immunopotency [6].

CT scan is the radiologic investigation of choice in assessing the extent of the metastatic lesion [5, 10]. Angiography will show a highly vascular mass [5]. Magnetic resonance scanning can also be helpful, especially in assessing residual disease after radiotherapy treatment [5, 10].

Management of these patients should be individualised based on the presence or absence of metastasis to different organs and the patient’s general health [2, 4]. Surgical excision is recommended as the primary line of treatment especially for those with no other organ involvement [2, 4–6].

The goal of surgical treatment of buccal metastasis is usually palliative providing patients with comfort and pain relief and at the same time preventing bleeding and infections [2]. The role of radiotherapy as the primary approach is controversial and has been reported by some authors for palliative management [2]. Other authors suggest that some metastatic lesions respond well to higher doses of radiotherapy with good local control [5]. RCC is traditionally described as being radioresistant [5, 7] and a chemoresistant tumour, with the average response rate to chemotherapy being as low as 7% [2, 5]. Recent data regarding antiangiogenic therapy for metastatic RCC are encouraging [7].

In conclusion, the presence of metastasis in oral mucosa due to RCC is rare and does not necessarily imply poor prognosis as has been described for metastases in the head and neck. However, reviewing the literature, we suggest that the treatment of metastatic RCC should be individualised. A surgical approach tailored to solitary lesions, as in our case, may be beneficial for controlling metastatic disease.

References


