



## Carcinoma Buccal mucosa presenting as ocular metastasis to Choroid – a case report

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**ABSTRACT**

Metastasis to eyes from a head and neck carcinoma is a rare event. A 62 year male presented with carcinoma of left buccal mucosa. The patient was operated with wide local excision of left buccal mucosa and left hemi-mandibulectomy with modified neck dissection type II (stage pT2N0Mx). Patient was advised adjuvant post-operative Radiotherapy (60Gray/30#). During the treatment (after 28Gy/14fractions) he presented with progressive diminution of vision in the left eye. He was investigated and was found to have choroidal secondaries in left eye involving 80% of the globe. On PET-CT scan, no metastatic lesion was found elsewhere in the body. Ocular metastasis in a case of T2N0Mx without pulmonary metastasis is a rare event.

**KEYWORDS**

carcinoma buccal mucosa, choroidal metastasis

**Introduction**

Secondaries are most common ocular neoplasms, and the Choroid, being a highly vascular layer, is the most common part of eye for metastasis.[1] Metastasis outnumbers the primary ocular neoplasms eg Retinoblastoma, Malignant melanoma. The common sources of ocular metastasis are primaries from the breasts (38-40%), lungs (20-29%), gastrointestinal and genitourinary malignancies. Choroidal melanoma and hemangioma are important differential diagnoses which mimic this condition. Ocular metastasis from a primary head and neck cancer is a rarity. The common distant sites involved by head and neck cancer are Lungs, mediastinal nodes, bones and liver[1]. Choroidal deposits from a carcinoma buccal mucosa is extremely rare. We report a case of Carcinoma buccal mucosa metastasizing to the choroid.

**Case Report:**

A 62 year old male diagnosed with carcinoma of left buccal mucosa in September 2012. He was operated upon (wide local excision of left buccal mucosa with left hemi-mandibulectomy and modified neck dissection type II ) on 12/09/12. Histopathology report suggested Squamous cell carcinoma of size: 2.5x2.0x1.7 cm3. All 31 Lymph nodes dissected from left level I to V were free (0/31). No perineural or lymphovascular invasion was seen. Overlying skin was free. Depth of invasion was 0.7 cm. All the margins and cut end of bone were free.

The patient was advised adjuvant Radiotherapy (60Gray in 30fractions) from 20/10/2012 on a 6 MV Linear accelerator with an AP-Lateral wedge plan. after (28Gray/14#), patient presented with painless, gradually progressive diminution of vision of the left eye. A thorough ophthalmological examination was done which included Slit lamp examination, USG and MRI of both eyes and brain. The USG scan (Figure 1) revealed choroidal lesion suggestive of secondaries in the left eye. MRI brain and both eyes (Figure 2 and 3) showed presence of altered signal intensity in posterior chamber of left eye. Hy-

per-intense in T1W and hypo-intense on T2W sequence solitary deposit in left choroid, involving 80% of the globe with secondary retinal detachment. There was no other choroidal or brain metastasis. Positron emission tomography-computed tomography evaluation showed metastatic disease in the left choroid, with no other involved site elsewhere in the body.

The radiotherapy treatment for the Carcinoma buccal mucosa was completed by the time the metastatic disease was confirmed. In view of stage IV disease, the patient was advised Paclitaxel and Carboplatin. He received three cycles and had no symptomatic improvement. The patient was then lost to follow up.

**Conclusion**

Although ocular metastasis is not common in head and neck cancer, any patient, having visual complaints should be thoroughly investigated. In rare instances, it can also be the first manifestation of an underlying undiagnosed malignancy. Though it is difficult to cure but early diagnosis can lead to prompt interventions which can lessen the suffering of the patient and restore or preserve the remaining visual function.

**Discussion**

Ocular neoplasm may be a primary or a secondary. The secondaries are far more common than the primary neoplasm.[2] The choroid is the highly vascular layer of the eye and thus the most common site for homing of the malignant cells although the retina and ciliary body can also be involved. Even in the malignancies where ocular metastasis is common like Ca Breast, Ca lung, carcinoma of gastrointestinal tract etc, the first site of metastasis are the lungs, brain, bones, liver before the eyes being affected. Development of ocular secondary without involvement of all these sites is quite unusual.[2]

Unilateral choroidal metastasis is commoner than bilateral metastasis.[3] Some studies have indicated that metastatic

disease is more common in the left eye as the left common carotid ascends directly off the aorta, tumor cells from the circulation could have a more direct path to left orbit. Diagnosing the disease is often challenging. Retinal detachment, intravitreal and subretinal haemorrhage are the common complications of choroidal metastasis. Retinal detachment gives rise to visual loss which is very common in these cases.[4]

Sonography shows diffuse choroidal thickening with high or medium amplitude echoes and may mimic choroidal melanoma. It can provide an idea about the local extent of the mass but cannot differentiate between a primary and a metastasis.

Clinical profile, MRI and FDG-PET CT can help in differentiating this condition from the common differential diagnoses eg Choroidal melanoma and hemangioma, although none of these investigations are diagnostic. Treatment is palliative with the aim of symptomatic relief.

Palliative radiotherapy can be delivered for pain or proptosis. It may improve symptoms in 80% of patients but may or may not restore vision. Chemotherapy for systemic disease can help to control ocular metastasis. Palliative surgery comes into play for intractable ocular morbidity like proptosis, pain etc which needs urgent intervention. Hormone therapy can help in hormone sensitive tumour like Ca breast.[5] Patient's performance status, life expectancy, status of the primary tumour and possible side effects of the intended treatment, determines the line of management. The overall prognosis for such patients remains poor.[6] But, when the primary disease is under control and eye is the only metastatic site, as in this case, or in carcinoma breast patients, where overall survival has improved dramatically in recent times, the search of some novel targeted treatment, new investigational agents, and advances in radiotherapy techniques may lead to better quality of life and preservation of ocular function.

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