Rare case of orbital tumor

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Abstract

Most common malignancy involving orbit is secondary deposits. Orbital metastasis from thyroid malignancy is rare (3.6%) and is usually from follicular and medullary carcinoma thyroid. Here we are presenting the case report of a lady who presented with loss of vision and on evaluation was found to have orbital metastasis from papillary carcinoma thyroid.

Keywords Thyroid carcinoma • Orbital metastasis.

Introduction

Papillary carcinoma thyroid is the most common malignancy involving the thyroid gland (75%). Distant metastasis is rare (1 to 2%). Here we report a case of papillary carcinoma thyroid, which presented as loss of vision.

Case report

A 70-year-old female was referred from Regional Institute of Ophthalmology, Thiruvananthapuram with complaints of loss of vision left eye of four months duration. She had undergone surgery for cataract in left eye, but there was no improvement of vision. She gave history of being on oral thyroxin for the

past six years after undergoing full evaluation for hypothyroidism and was on follow up. She was also a hypertensive on regular medication. She had no nasal complaints. A thorough examination was done. General examination was normal. Examination of eye showed absent visual acuity with restricted medial eye movement on left. Direct light reflex on left eye and indirect light reflex on right side was absent which was suggestive of left sided optic nerve palsy. Examination of neck showed 5 x 4 cm nodule on left lobe of thyroid gland. Other ENT areas were normal.

Her routine blood and urine examination and thyroid function tests were normal. CT scan of Para nasal sinuses revealed an expansile lesion involving left orbit compressing optic nerve extending to the posterior ethmoid (Fig. 1). Nasal endoscopy was done and biopsy taken from left ethmoid region. On histopathological examination it was found to be an inflammatory lesion. Due to suspicion of malignancy, we planned for a follow up CT scan and endoscopy after one week. Unfortunately the patient did not turn up after one week. She came back after two months for review. A repeat CT scan of paranasal sinuses was taken which revealed an extensive soft tissue mass lesion involving medial aspect of orbit compressing optic nerve and extending to ethmoids and sphenoid sinus and to the nasal cavity. Nasal endoscopy was done which showed a mass lesion in the left nasal cavity involving ethmoid cells eroding lamina papyracea and extending to orbit. An incisional biopsy was taken from the lesion. Histopathology report came as acinic cell carcinoma of minor salivary gland (Fig. 2).

Lateral Rhinotomy and excision of mass was done under general anaesthesia. Peroperatively it was found to be a well encapsulated mass involving the orbit, ethmoid, sphenoid and nasal cavity with a line of cleavage between mass and the eyeball. The mass was removed and histopathological examination was done. It was reported as follicular variant of acinic cell carcinoma of minor salivary gland. However, the pathologist suggested possibility of metastasis from thyroid malignancy.

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Fig. 1 CT scan PNS

Fig. 2 H&E x 400

A fine needle aspiration cytology from the thyroid swelling was done, the report of which came as follicular variant of papillary carcinoma thyroid. After correlating the fine needle aspiration cytology report from the thyroid nodule a diagnosis of metastasis from follicular variant of papillary carcinoma was made. Total thyroidectomy was done under general anaesthesia. There was diffuse enlargement of whole of thyroid gland with a 5 cm x 4 cm nodule in the left lobe. The gland was adherent to trachea. It was removed and histopathological examination done which confirmed the diagnosis. Whole body scan did not show any other focus of metastasis.

Post operatively; radiotherapy was given to the orbit. A total dose of 30 Gray in 15 sittings was given. Radio Iodine ablation was also done. The follow up CT scan and Radio Iodine scan revealed no remnant thyroid tissue. Patient is on regular follow up.

Discussion

The most common malignancy-involving orbit is secondary deposit mainly from Breast (42%), Lung (11%), Prostate (8%) and Malignant Melanoma (5%)¹ are other sites. Orbital metastasis from thyroid malignancy accounts to about 3-6%, usually from follicular and medullary carcinoma. The treatment for orbital metastasis is external radiotherapy.

Papillary carcinoma thyroid is the most common malignancy involving the thyroid, which accounts for seventy five percent of all thyroid malignancies. The average age of onset is third to fourth decade with a M:F ratio of 1:2.5². The usual presentation is a solitary nodule in thyroid gland with associated enlargement of regional lymph nodes. Pressure symptoms appear in late stages of the disease³. Pathologically they are unencapsulated tumours that tend to invade lymphatics and spread to normal surrounding tissue. Microscopy shows presence of papillary fronds, Orphan

Annie eye nucleus, inclusion bodies and presence of Psammoma bodies⁴.

Treatment is total or near total thyroidectomy with post operative life long supplementation of thyroid hormone. Distant metastasis for papillary carcinoma is rare (1 to 2%). Common sites involved are lung followed by bone. Distant metastasis is a predictor of poor prognosis¹.

On review of literature, only one reported case of orbital metastasis of papillary carcinoma thyroid involving choroid of the eyeball was found⁵. This is the first reported case of an extra global orbital metastasis.

Conclusion

The common malignancy-involving orbit is secondary deposit from primary tumours. This case is being reported, as metastasis from papillary carcinoma thyroid is extremely rare in the orbit with only one case being reported so far. This case shows that while looking for a primary, the thyroid also is to be looked for as a possible primary site.

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