



Sixth Nerve Palsy due to Metastasis of Thyroid Carcinoma in a patient on Alternative Medicine

Sangeethabalasri Pugazhendhi¹, C Seetharaman², Anjali Jadhav³ and Virna M Shah^{3*}

¹PSG Institute of Medical Sciences and Research, Coimbatore, Tamilnadu, India

²Radiology Department, Kovai Medical Center and Hospitals, Coimbatore, Tamilnadu, India

³Department of Neuro-Ophthalmology, Aravind Eye Hospitals and Postgraduate Institute of Ophthalmology, Coimbatore, Tamilnadu, India

***Corresponding Author:** Virna M Shah, Department of Neuro-Ophthalmology, Aravind Eye Hospital and Postgraduate Institute of Ophthalmology, Coimbatore, Tamilnadu, India

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Abstract

Isolated sixth nerve palsy is a common neuro-ophthalmology consult, which in a middle-aged individual is frequently caused by a vascular disorder. Brain metastasis is a rare occurrence (1.5%) of thyroid carcinomas. We present an unusual case where a patient presents with diplopia due to brain metastasis of a thyroid carcinoma that remained undiagnosed, because of her strict adherence to homeopathy treatment. Alternative treatment is being used worldwide, but adequate and timely monitoring of the disease is mandatory in order to prevent complications, metastasis in this case. Here we aim to emphasize the need to monitor the limitations of alternative treatment, thus possibly stopping the metastatic cascade.

Keywords: Homeopathy; Alternative Medicine; Sixth Nerve Palsy; Thyroid Carcinoma; Metastasis

Introduction

Alternative medicine is popularly used worldwide as both individual or complementary with allopathic treatment. The use of homeopathy in USA, UK, Australia and Canada ranges from 0.2 to 2.9%. The highest use was reported in Switzerland, where homeopathy is covered by mandatory health insurance [1]. Among the numerous uses of homeopathy, the most common health conditions directed are otolaryngology (ENT) and respiratory conditions (18.5%), musculoskeletal (12.3%), gastrointestinal (5.0%), fatigue, sleep, stress or pain (7.7%) and neurologic conditions (3.4%) [2].

Similarly, the Ayurveda, Siddha, Unani, Yoga, Naturopathy and Homeopathy (AYUSH) system is rampant in India, which aims to demonstrate a pluralistic system of integrative healthcare [3]. Horizontal diplopia due to dysfunction or paralysis of the abducent nerve can be a result of lesions occurring anywhere in its course from the brainstem to the lateral rectus muscle. It could be following head trauma, systemic illnesses, inflammatory, neoplastic, iatrogenic and commonest microvasculopathic causes such as dia-

betes or hypertension [4]. We present a rare case where a patient presents with diplopia likely due to brain metastasis caused by an undiagnosed thyroid carcinoma, because of her strict adherence to alternative treatment.

Case Report

A 56-year-old woman presented to the clinic with binocular in left lateral gaze diplopia of one month duration. She reported that her diplopia was gradual in onset and was present more predominantly in her left lateral gaze with horizontal separation of images and no diurnal variation. Additionally, patient denied any ocular pain, numbness, weakness, paresthesias or history of head trauma. Her medical history included thyroid disease for 5 years, for which she was on regular homeopathic medications. According to the patient, her neck swelling reduced in size shortly after her starting the alternative treatment. She was not a known diabetic or hypertensive.

On examination of the neck, patient had a multinodular, non-tender enlargement of the thyroid gland, left lobe greater than

the right lobe (Figure 1), with cervical lymphadenopathy. On ophthalmic examination, her best corrected visual acuity (BCVA) was 20/20 in both eyes. In the right eye, her extraocular movements were full, while left eye showed restriction of abduction suggestive of left lateral rectus paresis due to involvement of the sixth cranial nerve, which was confirmed by diplopia and Hess charting. Her corneal sensation was reduced on the left side suggestive of additional fifth nerve first division involvement. She had also noted a change in her voice. Both anterior and posterior segment examination were within normal in both eyes. Color vision, central fields, contrast sensitivity, routine blood investigations (blood sugar, erythrocyte sedimentation rate, lipid profile) were all within normal limits. She was not willing to test for thyroid profile, as she was confident of her alternative medicine treatment for her thyroid disease. Suspecting a sixth nerve palsy due to a metastatic lesion to the brain, neuroimaging was advised.

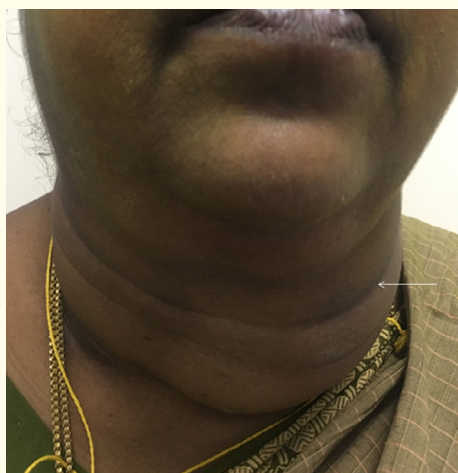


Figure 1: Photograph showing the neck swelling which was more on the left side (white arrow).

Her magnetic resonance imaging (MRI) of brain showed a focal hyper intense mass lesion in left petrous apex and Dorello canal encasing left abducens nerve while the thyroid gland, showed gross thyromegaly with multiple heterogeneous nodules and central necrosis suggestive of malignancy (Figure 2). With a final diagnosis of sixth nerve palsy due to compressive metastasis likely from thyroid malignancy, the patient was referred to an oncologist for biopsy to confirm the metastasis and for further management.

Discussion and Conclusion

Horizontal diplopia is the most debilitating symptom in a case of lateral rectus palsy. Dysfunction or paralysis of the abducent

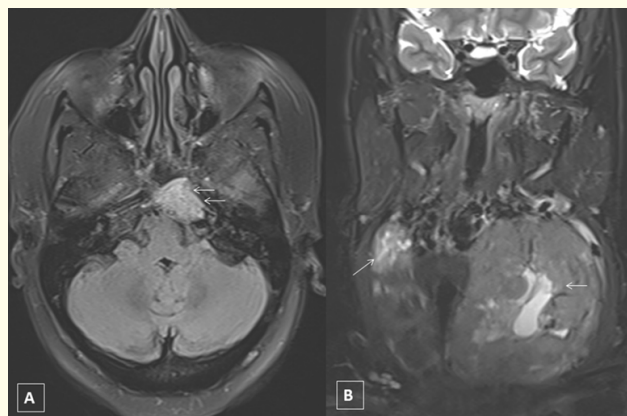


Figure 2: 2A: Fluid-attenuated inversion recovery (FLAIR) axial MRI image showing focal hyper intense mass lesion in left petrous apex and Dorello canal encasing left abducens nerve (white arrows). 2B: T2 fat suppressed coronal MRI image showing gross thyromegaly with multiple heterogeneous nodules and central necrosis, left more than right (white arrows).

nerve can be a result of lesions occurring anywhere in its course from the brainstem to the lateral rectus muscle [4]. Isolated sixth nerve palsy is a common neuro-ophthalmology consult, which in a middle-aged individual is frequently caused by a vascular disorder. Without history or signs of trauma, infection, or any microvascular disorder, a tumor or brain metastasis are among the main other differential diagnoses [4]. Brain metastasis is an infrequent clinical problem reported in 1.5% of thyroid carcinoma cases [5]. It is clinically diagnosed based on symptoms such as diplopia, headache, nausea, motor or sensory deficits, vision loss, seizures or ataxia. Our case was on long-term homeopathic treatment for a thyroid swelling with no definite diagnosis. With close monitoring and treatment, the progression into metastatic thyroid carcinoma and its associated neuro-ophthalmic symptoms could have been prevented.

Alternative medicine is popularly used worldwide as both individual or complementary with allopathic treatment. Studies have indicated that homeopathy may treat subclinical hypothyroidism and auto-immune thyroiditis, and may delay their progression into overt hypothyroidism by normalizing thyroid function [6]. However, additional studies are required to investigate the precise effect of homeopathic drugs on the thyroid gland and its function.

There is little evidence investigating the effect of homeopathy specific to thyroid malignancy. Despite the advances in oncology, individualized treatments and cancer care, patients are relying on

complementary treatment such as homeopathy to address and minimize side effects and symptom burden [7,8]. Due to the lack of proven efficacy and understanding of the mechanism of action, homeopathy has generally been used as an unconventional method of treatment. However, limited research suggests that homeopathy causes cellular alterations in some cancerous cells [7]. In our case, the patient utilized homeopathy as the solitary method of treatment without observing its therapeutic effects and the progression of the disease. This exhibits the inadequate knowledge and various misconceptions among thyroid disease patients, which results in suboptimal patient outcomes. Sufficient disease awareness and health education for patients, specifically illiterate and ill-informed patients, is critical to ensure adequate and timely monitoring of disease progression. Although further studies are required to confirm the effect of homeopathy in cancer management, benefits such as the minimal risk, low cost, reduced side effects exhibit positive patient response [7].

Since the current trend of this integrative approach is increasing in many nations worldwide, this case emphasizes the insufficient understanding of alternative medicine and presents as an incident wherein homeopathy treatment alone, thyroid malignancy remained undiagnosed till it had metastasized. While studies of homeopathy in combination with conventional treatment may improve quality of life, reduce symptom burden and possibly improve long-term survival, it is of critical importance to establish limitations to the dependence on alternative medicine.

Financial Disclosure

None to declare.

Conflict of Interest

Nil.

Informed Consent

Taken.

Author Contributions

All authors have equally contributed in this manuscript.

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