taking, physical examination and investigations. Precipitating events such as trauma, recent surgery, or infection should be noted. Associated signs and symptoms can narrow the differential. Multiple cranial nerve deficits, incoordination or nystagmus may indicate a structural lesion or vascular cause. Systemic sequelae of inflammatory or metabolic conditions can raise suspicion of rheumatoid arthritis, ankylosing spondylitis or diabetes mellitus.

The investigative work-up should begin with a high resolution MRI as structural lesions are the most common cause. Magnetic resonance angiography can reveal vertebral or carotid artery dissection or ectasia. If inflammatory or metabolic causes are suspected, serologic testing for autoimmune disease or routine biochemistry can be ordered. A positive Monospot or elevated EBV titers can identify infectious mononucleosis. If after thorough investigation no clear etiology of the hypoglossal palsy can be found, then the possibility of isolated idiopathic hypoglossal nerve palsy remains.

Infectious mononucleosis is a rare cause of hypoglossal nerve palsy but should be suspected in isolated, unilateral clinical presentations. There is no accepted management of post-infectious hypoglossal nerve palsy due to its rarity. Of the six cases reported, corticosteroid therapy was initiated in three cases. Five patients resolved completely(4); only one case resulted in a persistent deficit after pulse steroids(5). Based on the limited literature available, hypoglossal nerve injury post-mononucleosis infection appears to be a benign self-limiting condition. The few case reports available suggest that once the more serious potential etiologies have been excluded, no further treatment is required.

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To the Editor

Melanoma-Associated Retinopathy Report of a Case and Review

Melanoma associated retinopathy (MAR) is a rare visual autoimmune condition associated with metastatic malignant melanoma (MM). The case of a patient with spontaneous MAR resolution and a review of the literature are presented.

A 67-year-old female was diagnosed with metastatic subcutaneous MM from unknown primary in 1995. She was treated by surgical resection but developed pulmonary metastasis in May 2001. She underwent wedge resection of lung nodules and was enrolled in a phase I melanoma vaccine trial. Two weeks after surgery, she began experiencing bilateral white sparkling light sensations described as similar to ''looking through a lace curtain'' along with a decreased night vision preventing her from driving. Visual acuity was 20/25 on the right and 20/40 on the left. Neurological examination was otherwise unremarkable. Goldmann perimetry revealed bilateral constriction of the temporal fields (Figure 1, A-B). Brain MRI was only remarkable for an incidental left parietal meningioma and electro-encephalogram recording was normal. ERG demonstrated decreased dark-adapted ERG b-wave amplitude consistent with MAR. After 9 years of continuous visual symptoms and no evidence of MM recurrence, she reported resolution her photopsia in August 2010. On March 2011, she had complete resolution of temporal fields' constriction (Figure 1, C-D) and stable visual acuity.

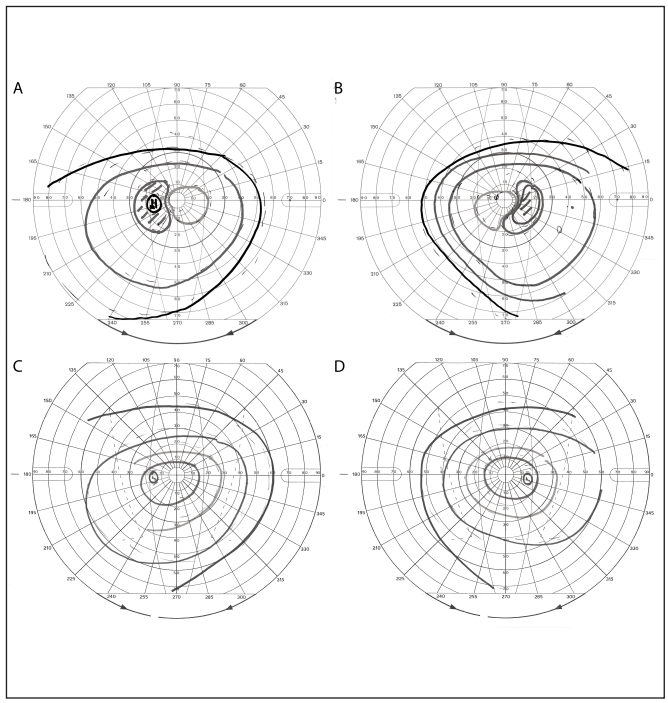

Figure: *Goldmann Perimetry. A: Right eye; constriction of temporal field. B: Left eye; constriction of temporal field. C: Right eye; return to normal visual field. D: Left eye; return to normal visual field.*

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Pathogenesis

Melanoma associated retinopathy pathogenesis remains poorly understood. After Milam[1] first recognized that MAR patients had circulating IgG autoantibodies directed to bipolar cells, it has commonly been accepted that a B-lymphocyte response to MM antigens cross-reacts with bipolar cells antigens. After a critical number of bipolar cells have been affected, impaired neuronal transmission to the inner retina leads to sudden decrease in night vision[2]. More recently, antibodies to optic nerve, retinal nerve fiber layer and other photoreceptors cells have been isolated and are being investigated.

Clinical picture

Clinical manifestations of MAR typically includes a sudden onset of impaired night vision, sensations of "flickering lights", a normal fundoscopic examination and an ERG pattern showing a reduction in the amplitude of the dark-adapted b-wave secondary to decreased signal transduction of bipolar cells. However, clinical picture's spectrum varies widely from no fundoscopic finding to frank retinal detachment. Although not routinely done, confirmatory test includes detection of retinal antibodies in serum of patients by indirect immunofluorescence[3].

MAR and Metastatic Melanoma

Melanoma associated retinopathy is closely associated to metastatic MM and is usually diagnosed shortly after, concurrently or before diagnosis of metastasis. The exact prevalence of MAR remains unknown and subclinical MAR might be common. Ladewig[4] showed positive antiretinal activity in 84%, 64% and 47% of patients with stage IV, II and I/II respectively. In his study, antiretinal activity was of increasing intensity with higher stages, suggesting that antibody activity correlates with progressive disease.

Treatment of MAR

There is currently no effective treatment for MAR. Although not supported by clear evidence, it is believed that tumor bulk cytoreduction with surgery, chemotherapy and radiotherapy to treat metastasis is the most effective and safest treatment for MAR[5]. Immunomodulatory intervention with corticosteroids, IVIG infusion and plasmapheresis has been reported in sporadic cases with limited effect.

Our patient has shown no evidence of disease in the last nine years and recently has experienced resolution of her symptoms and visual field constriction. This raises the question as to whether spontaneous improvement of MAR can be a sign of loss of stimulus for antibody production with partial or complete regression of the tumor.

Beneficial Immunity?

It remains unclear whether the antibodies that develop in patients with MAR have a prognostic significance. Our patient is alive 15 years after diagnosis of an initially metastatic MM and remains free of disease nine years after lung metastatectomy. Review of the literature reveals a median survival of 2.9 years from diagnosis of metastatic MM in patients with MAR. Because of the possible benefit of MAR on survival, some authors suggest that immunomodulatory treatments should only be reserved in cases of progressive ophthalmologic deterioration[2].

In conclusion, MAR diagnosis is challenging, but MAR should be considered any time the clinical triad of night blindness, visual loss and photopsia are present. This symptom complex is important to recognize since MAR may be the first sign of occult metastatic melanoma. Although the shimmering aspect of the photopsia can be seen in other conditions, its presence in any patient with MM should warrant further investigation to rule out MAR. The efficacy and consequences of immunomodulatory treatments in patients with MAR need to be evaluated carefully.

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