the very active nature of tumor recurrence, following both the excision biopsy and exenteration, was surprising, and the likelihood of radiotherapy or chemotherapy controlling such macroscopic disease was remote.1,4,6 Radical skull base surgery, which entails an intraoperative mortality rate of several percent, was considered. However, it was highly improbable that even this kind of surgery could have successfully eradicated the tumor, and the patient declined further intervention.

This unusual case report of a rare but life-threatening condition illustrates that primary orbital melanoma should be considered in cases of rapidly progressing proptosis in young white patients, even where no predisposing ocular disease is present.

Yvonne M. Delaney, FRCOphth
Susan Hague, FRCOphth
Brendan McDonald, FRCPath
Oxford, England

Corresponding author: Susan Hague, FRCOphth, Radcliffe Infirmary, Oxford University Hospitals, Woodstock Road, Oxford OX2 6HE, England (e-mail: y.delaney@virgin.net).


Is Coxsackievirus the Cause of Unilateral Acute Idiopathic Maculopathy?

Unilateral acute idiopathic maculopathy (UAIM) is an inflammatory process involving the outer retina and retinal pigment epithelium (RPE) of the macula. It is typically associated with a serous neurosensory detachment and is sometimes associated with papillitis, subretinal exudation, intraretinal hemorrhages, and/or vitreous cells.1,2 Patients report a loss of central vision followed by a remarkable spontaneous recovery over a period of several weeks. This entity frequently affects young, healthy individuals and is often associated with a prodromal flu-like illness. We describe 2 patients who developed ocular findings consistent with UAIM shortly after developing classic signs and symptoms of hand-foot-and-mouth disease. We believe that coxsackievirus, which causes hand-foot-and-mouth disease, may also cause UAIM.

Report of Cases. Case 1. A 30-year-old woman had a 5-day history of decreased vision in her left eye. Hand-foot-and-mouth disease had spread through her child’s daycare center that same week. The patient had a sore throat and small erythematous papules on the palms of her hands and the soles of her feet. Visual acuity was 20/20 OD and 20/200 OS. Findings from an anterior segment examination were unremarkable in both eyes; intraocular pressure was normal in both eyes. Results of a fundus examination were unremarkable in the right eye. Ophthalmoscopie examination of the left eye revealed a yellow lesion bisecting the fovea at the level of the outer retina, RPE, and choroid. There was no evidence of vitreous cells, subretinal fluid, or papililis. Some mottingling of the RPE was present (Figure 1A). Fluorescein angiography of the left eye revealed early irregular hyperfluorescence and late staining (Figure 1B).

The patient was observed without intervention and 3 weeks later her visual acuity improved to 20/20 OS. The RPE and choroid had lost their yellow appearance with the development of a bull’s-eye flat pigmented scar (Figure 2). Coxsackievirus titers drawn 3 weeks after the onset of symptoms showed that the level of coxsackievirus A16 antibody was elevated at 1:8 (reference range, <1:8), which may be indicative of a past or recent infection. The level of coxsackievirus B6 antibody titer was also elevated at 1:16 (reference range, <1:8).

Case 2. A 38-year-old white man developed signs and symptoms characteristic of hand-foot-and-mouth disease including a fever, sore throat, and erythematous papules on the palms of his hands.

Figure 1. Case 1. A, Lesion bisects the fovea and shows some thickening and early pigment mottingling. B, Fluorescein angiogram shows staining and leakage of the lesion.
and on the soles of his feet approximately 4 days after 2 of his children were diagnosed as having hand-foot-and-mouth disease. One to 2 days later he noted decreased central vision in his left eye. Visual acuity was 20/20 OD and 20/200 OS. Intraocular pressure was normal in both eyes. Findings from an anterior segment examination were unremarkable in both eyes. Results of a fundus examination were unremarkable in the right eye. Ophthalmoscopic examination of the left eye revealed a white lesion at the level of the RPE and choroid, involving the fovea and superior temporal macula (Figure 3A). There were 2 small intraretinal hemorrhages but no evidence of vitreous cells, subretinal fluid, or papillitis. There was also a small hypopigmented lesion inferotemporal to this lesion (Figure 3A and B). Fluorescein angiography revealed blockage of underlying fluorescence during early transit. In midtransit there was irregular hyperfluorescence within the center of the lesions and late transit revealed leakage and staining at the level of the RPE (Figure 3C). One week later there was less intense whitening and the RPE developed mild pigment mottling. Although the patient reported subjective improvement in vision, his visual acuity was unchanged at 20/200 OS. Visual acuity improved to 20/40 OS 3 weeks after the initial examination and 20/20 OS 6 weeks after the initial examination, although the patient still noted mild haziness localized to the inferonasal portion of his central visual field. Fundus examination revealed a bull’s-eye configuration to the scar present just eccentric to the center of the fovea (Figure 4).

Comment. We report 2 cases of suspected UAIM closely following the onset of hand-foot-and-mouth disease. Both patients developed relatively rapid loss of central vision with signs of acute lesions in the outer retina and RPE. The changes healed with return of vision and the appearance of a bull’s-eye type of scar. These ocular findings and the associated viral prodrome are typical of UAIM. The lack of subretinal fluid, however, is somewhat atypical of UAIM. In the first case it is possible that the fluid had resolved by the time the patient was examined 5 days after the onset of symptoms since pigment mottling was already beginning to develop. In the second case the patient was seen within a few days after the onset of symptoms, so this scenario is less likely. However, we do know that UAIM represents a spectrum of ocular findings that is not consistently present in all patients. Therefore, the absence of subretinal fluid may represent another presentation of the spectrum of macular changes we call UAIM. Reduced visual acuity in UAIM is secondary to an exudative maculopathy. A possible association of UAIM and coxsackievirus has been alluded to in a previous report of a
woman with the disease who had (along with her daughter) systemic symptoms characteristic of coxsackievirus infection preceding her visual symptoms. However, the acute and convalescent coxsackievirus antibody titers that were obtained in the woman were not abnormal. There have been several reports of coxsackievirus infection associated with chorioretinitis, and the lesions described bear some resemblance to UAIM.

Coxsackievirus A16 and less commonly coxsackie variants A2, A5, A7, A9, A10, B1, B2, B3, B4, B6, and enterovirus 71 are generally responsible for hand-foot-and-mouth disease. Clinical interpretation of complement fixation test results for coxsackievirus ideally requires comparison of a short-term serum sample with a convalescent serum sample. In our first patient, although only convalescent serum samples were obtained, the level of coxsackievirus A16 and B6 antibodies was elevated. The second case of hand-foot-and-mouth disease was diagnosed clinically based on the presence of the classic physical findings that defined the disease in the patient and his 2 children. The temporal relationship between the onset of hand-foot-and-mouth disease and the development of retinal findings consistent with UAIM suggests that they may be related. Heightened awareness of this possible relationship should prompt retinal specialists to obtain acute and convalescent coxsackievirus antibody titers so that we can determine whether UAIM should be renamed “coxsackievirus maculopathy.”

Adam P. Beck, MD
Lee M. Jampol, MD
Chicago, Ill
David A. Glasser, MD
Florissant, Mo
John S. Pollack, MD
Chicago

The authors have no relevant financial interest in this article.

This study was supported in part by an unrestricted grant from Research to Prevent Blindness Inc, New York, NY, to Northwestern University, Chicago.

Corresponding author and reprints: Lee M. Jampol, MD, Department of Ophthalmology, Feinberg School of Medicine, Northwestern University, 645 N Michigan Ave, Suite 440, Chicago, IL 60611 (e-mail: L-jampol@northwestern.edu).


Isolated Vitreoretinal Amyloidosis in the Absence of Transthyretin Mutations

Vitreoretinal amyloidosis is believed to be associated universally with mutations in the genes encoding transthyretin and found exclusively as part of the familial amyloidotic polyneuropathy (FAP) syndrome. We describe herein an unusual case of biopsy-proved vitreoretinal amyloidosis without systemic involvement and demonstrate that vitreoretinal amyloidosis can occur with intact wild-type transthyretin genes.

Report of a Case. A 70-year-old woman with a history of hypercholesterolemia, chronic obstructive pulmonary disease, a distant cerebrovascular accident, and bilateral cataract extractions was first seen by us with “black snow” clouding her vision in both eyes. Review of systems was otherwise unremarkable, and her family history was negative for amyloidosis. Her visual acuity was 20/50 OD and 20/60 OS and worsened with pinhole examination. There was no relative afferent pupillary defect, intraocular tensions were within normal limits, and
5. Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP)
   Study Group. Photodynamic therapy of subfoveal choroidal neovascularization in
   age-related macular degeneration with verteporfin: one-year results of 2 ran-
6. Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP)
   Study Group. Photodynamic therapy of subfoveal choroidal neovascularization in
   age-related macular degeneration with verteporfin: two-year results of 2 ran-
7. Verteporfin in Photodynamic Therapy (VIP) Study Group. Verteporfin therapy of
   subfoveal choroidal neovascularization in age-related macular degeneration: two-
   year results of a randomized clinical trial including lesions with occult but no
   131:541-560.
8. US Department of Health and Human Services. National coverage policy for pho-
   Dept of Health and Human Services; 2001. HCFA publication 6, section 35-100.
9. Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP)
   Study Group. Verteporfin therapy of subfoveal choroidal neovascularization in
   patients with age-related macular degeneration: additional information regard-
   ing baseline lesion composition’s impact on vision outcomes: TAP report No. 3.
10. Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP)
    Study Group and Verteporfin in Photodynamic Therapy (VIP) Study Group. Effect of
    baseline lesion size, visual acuity, and lesion composition on visual acuity
    change from baseline with and without verteporfin therapy in choroidal neo-
    vascularization secondary to age-related macular degeneration: TAP and VIP re-
11. Centers for Medicare & Medicaid Services. Ocular photodynamic therapy with
    verteporfin for macular degeneration (CAG-00066R3). Available at: http://www.

12. Macular Photocoagulation Study Group. Subfoveal neovascular lesions in age-
    related macular degeneration: guidelines for evaluation and treatment in the Macu-
13. Verteporfin Roundtable 2000 and 2001 Participants, Treatment of Age-Related
    Macular Degeneration With Photodynamic Therapy (TAP) Study Group Princi-
    pal Investigators, Verteporfin in Photodynamic Therapy (VIP) Study Group Prin-
    cipal Investigators. Guidelines for using verteporfin (Visudyne®) in photoody-
    namic therapy to treat choroidal neovascularization due to age-related macular
    lar degeneration. Available at: http://www.aao.org/aao/education/library/ppp
15. Cabana MD, Rand CS, Powe NR, et al. Why don’t physicians follow clinical prac-
16. Holz FG, Jorzik J, Schutt F, Flach U, Unnebrink K. Agreement among ophthal-
    mologists in evaluating fluorescein angiograms in patients with neovascular age-
    related macular degeneration for photodynamic therapy eligibility (FLAP-study).
17. Bressler NM. Photodynamic therapy: current treatment guidelines for choroidal neo-
    vascularization (CNV). In: The AAO Program Book for 2002 Annual Meeting,
18. Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP)
    and Verteporfin in Photodynamic Therapy (VIP) Study Groups. Photodynamic
    therapy of subfoveal choroidal neovascularization with verteporfin: fluorescein
    angiographic guidelines for evaluation and treatment: TAP and VIP report No. 2.
19. Foote SB. Focus on locus: evolution of Medicare’s local coverage policy. Health
20. Foote SB. Why Medicare cannot promulgate a national coverage rule: a case of

Correction

Misspelled Surname. In the Clinicopathologic Reports, Case Reports, and Small Case Series article by Beck et al titled “Is Coxackievirus the Cause of Unilateral Acute Idiopathic Maculopathy?,” published in the January 2004 issue of the ARCHIVES (2004;122:121-123), the third signa-
ture should have read as follows: David A. Glaser, MD, Florissant, Mo.