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Letters to the Editor

Dolicho-ectasia and Syphilis

To the Editor:

It is ironic that the March 1987 issue of the *Journal of Clinical Neuro-ophthalmology*, which contains three papers on syphilis and an editorial on the same subject, has an article regarding a syndrome frequently associated with syphilis and fails to report the results of a serologic test for that disease (1).

In the article in which we coined the term *dolicho-ectasia* (2), we reported that, of the 22 patients upon whom serologic results were available, five were positive and three were equivocal. We also pointed out that the syndrome of dolicho-ectasia was frequently associated with aortic aneurysms and hypertension, both of which were present in the patient reported by Slavin and LoPinto.

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2. Sacks JG, Lindenberg R. Dolicho-ectatic intracranial arteries: Symptomatology and pathogenesis of arterial elongation and distension. *Johns Hopkins Med J* 1969;125:95–106.

Editorial Response

The fact that of 22 patients with dolicho-ectatic intracranial arteries, five showed positive and three equivocal serologic tests for syphilis is certainly of interest. Presumably these were reagin (nonspecific) (VDRL) tests, and not TPI or FTA-ABS (specific) tests. If we accept the five reactive tests as consistent with prior syphilitic infection (and exclude any possibility of a biologic false positive) one would find a 23% incidence of seroreactivity in those patients. If we accept all eight tests as pointing to prior syphilic infection, one would call that a 36% incidence of seroreactivity in those patients. It is of interest that in a study of 1,985 patients seen at the Bascom Palmer Eye Institute in Miami who had serologic testing between 1957 and 1963, that 718 had reactive FTA-ABS tests and 441 patients had reactive serum VDRL tests. The FTA-ABS was thus reactive in 41% of all sera tested, and the VDRL test was reactive in 22% of the sera tested—an almost identical incidence to the seroreactivity reported by Sacks and Lindenberg in their report. This study was reported by Harner et al. (1). The point to be made is that one must remember this disease and continue to get routine VDRL or RPR tests on all admissions on ophthalmologic and neurologic services and order the serum FTA-ABS test with a high degree of suspicion in these patients. Whether or not there is a higher incidence of seroreactivity in patients with dolichoectasia than in other patients in the ophthalmic and neurologic clinics in the Baltimore population would require a controlled study to evaluate. Dr. Sacks certainly helps emphasize the importance of looking for syphilis, however!

J. Lawton Smith, M.D.

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Giant Cell Arteritis and *Borrelia* Infection

To the Editor:

I would like to test the hypothesis that a fraction of patients with giant cell arteritis (temporal arteritis) might have evidence of infection with the spirochete *Borrelia burgdorferi* or related *Borrelia*

species. The current clinical spectrum of *Borrelia burgdorferi* infection includes acute and chronic cutaneous lesions (erythema chronicum migrans, acrodermatitis chronicum atrophicans), arthritis, carditis, orchitis, iritis, episcleritis, and intrauterine infection followed by fetal stillbirth or malformation. Neurologic manifestations have been grouped into primary, secondary, and tertiary forms by Dr. Andrew Pachner and Dr. Allen Steere. Periods of clinical latency of up to 10 years have been described in selected patients with *Borrelia burgdorferi* infection. Peripheral neuropathy, transverse myelitis, psychiatric disorders, demyelinating disorders, multiple sclerosis-like illnesses, cognitive dysfunction, and dementia constitute various clinical presentations of late secondary and tertiary Lyme disease.

I propose, based on the model of syphilis, that temporal arteritis might be the *Borrelia* equivalent of meningovascular syphilis. Preliminary studies of several temporal artery biopsies with silver impregnation methods and in vitro cultures have yielded evidence of spirochetes in either blood or tissue in biopsy-documented cases of giant cell arteritis.

Ophthalmologists diagnose and treat the majority of patients with temporal arteritis. I would like to call attention to my hypothesis and to the results of my preliminary clinical studies. It is my hope that additional patients from various areas of this country might be enrolled in this project.

Two tubes of blood (one EDTA purple top tube and one red top tube of clotted blood) from each patient with biopsy-documented giant cell arteritis are all that is required. These can be mailed to me at room temperature via ordinary parcel post. Patient confidentiality can be maintained by labeling the blood tubes with the first three initials of the patient's last name followed by the first initial. I would be interested in studying blood from patients at any stage of the disease. Preliminary results will be available to the referring ophthalmologist at any time via telephone, and cumulative reports will be mailed to the participating ophthalmologists at monthly intervals.

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Generalized Visual Field Constriction

To the Editor:

Generalized constriction of the visual field is considered to be a nonspecific finding with a number of possible causes. Among the etiologic considerations are glaucoma, retinitis pigmentosa, long-standing increased intracranial pressure, occipital lobe lesions with macular sparing, and nonorganic visual loss. Distinguishing the latter from organic causes can usually be accomplished with several well-known diagnostic ploys.

The nonorganic constricted visual field can usually be shown to be "tunnel" rather than "funnel"—shaped by confrontation and/or by 1 m/2 m tangent screen testing. Goldmann perimetry usually demonstrates "bunching up" or actual crossing of isopters. The observation that a patient's ability to navigate about the office is much better than would be expected for the degree of visual field loss is also helpful. By each of these techniques, it can be demonstrated that visual loss is inconsistent and must have at least a component that is nonorganic. What is not documented is the actual extent of visual capacity. I have found an additional technique for evaluating such patients that can demonstrate intact vision in the peripheral field.

At some point following the standard assessment of the visual field, the patient is asked a few neurologic review-of-systems questions, particularly involving coordination in the upper extremities. Then, by way of demonstrating such skills, the patient is asked to open and close the hands rapidly, tap thumb and forefinger, and tap the knees with the hands. It is important to maintain steady eye contact with the patient during these maneuvers; repeated encouragement and moving quickly helps. Then, the patient is instructed to perform finger-nose-finger testing in the usual manner employed for testing cerebellar function. With each repetition, the examiner's finger is moved to different parts of the visual field, varying from right to left in a random manner. To avoid using cues from proximal arm movement, both arms can be extended simultaneously but with the fingers of only one side wiggling to denote the target.

Using this technique, it is usually possible to demonstrate an intact visual field out to the extreme periphery. Since the test is performed under