

Advanced instrumentation detects lesion missed by four BIO examiners

The lesion was evident on the Optomap Retinal Exam and B-scan ultrasonography.

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A high-tech device is desirable if such device either saves time or detects abnormalities missed by routine diagnostic procedures. If the device can do both, all clinicians should evaluate their present level of care and consider moving forward.

Recently, a colleague of mine at SUNY detected a lesion in the left eye of an asymptomatic patient seen in the primary care clinic and referred the patient to our retinal clinic. The lesion was drawn on the record as an elevated mass in the superior temporal quadrant of the left eye. Both my colleague and the fourth-year student with whom he was working performed binocular indirect ophthalmoscopy through a dilated pupil in both eyes, and both found the right eye to be normal but concluded that the lesion in the left eye was an acquired retinoschisis.

In the retinal clinic, another fourth-year student dilated both eyes of the patient and performed BIO. I was then consulted, and I, too, performed BIO on both eyes through a well-dilated pupil. Prior to my examination, Optomap Retinal Exam (Optos, Marlborough, Mass.) images were obtained in both eyes by a SUNY research analyst. After my

exam, we reviewed the Optomap images together.

Lesions seen in both eyes

To my surprise and embarrassment, my research analyst had imaged the lesion in the left eye (that all four BIO examiners detected) with the Optomap, but also imaged an inferior temporal lesion in the right eye that was at least as large as the one in the left. This one was missed by all four examiners. I then repeated the BIO exam and still could not detect a single large inferior temporal lesion in the right eye, but did observe some unremarkable pigmentary changes.

Long ago, I learned that B-scan ultrasonography is the ideal procedure to confirm or deny the presence of an elevated fundus lesion. As expected, the B-scan showed the lesion in the left superior temporal quadrant to be dome-shaped with a sonolucent zone below it – rather typical of an acquired retinoschisis. But B-scan of the right eye also revealed a lesion similar to the one in the left eye, slightly larger and somewhat less elevated in the inferior temporal quadrant.

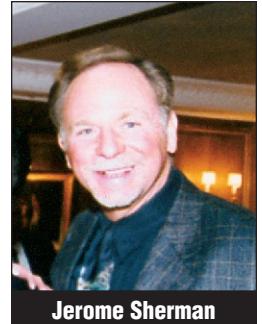
No treatment indicated

I reviewed the Optomap images with the patient as well as the B-scans and assured the patient that no treatment was indicated at present. The patient was given an appointment in 6 months but was told to return immediately if

any change in vision (such as flashes, floaters, shadows, spots, cobwebs or curtains) occurs. A retinoschisis rarely leads to a retinal detachment, but if holes are observed in both the so-called outer and inner table, a retinal detachment is possible.

In retrospect, the existence of a lesion in the right eye was not remarkable because retinoschisis is often bilateral. What is remarkable is that four examiners missed it with BIO through a well-dilated pupil.

This case is a humbling experience and proves once again that high-tech devices (such as the Optomap and B-scan ultrasonography in this case) can make concerned clinicians even better. ■

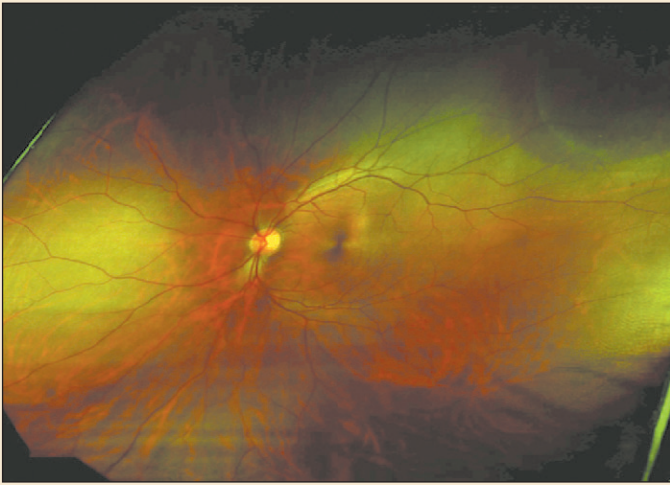


Jerome Sherman

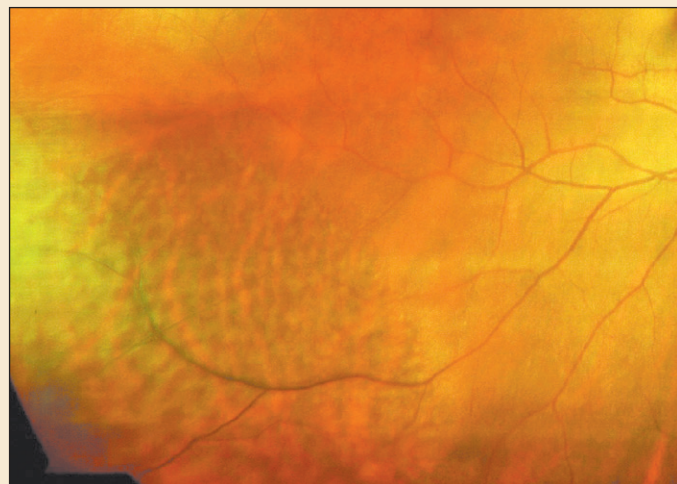
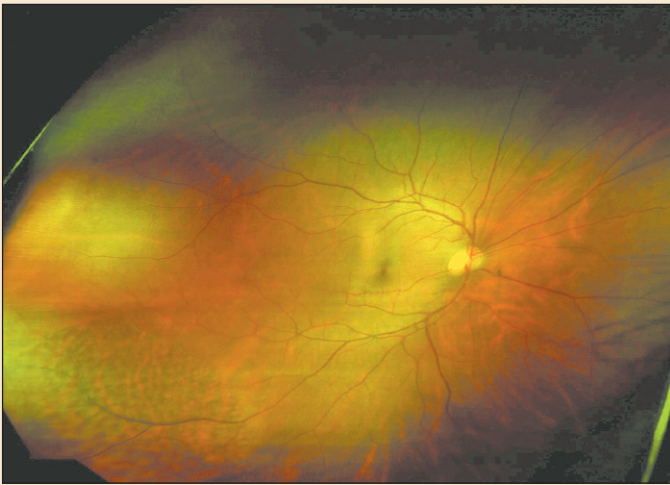
For Your Information:

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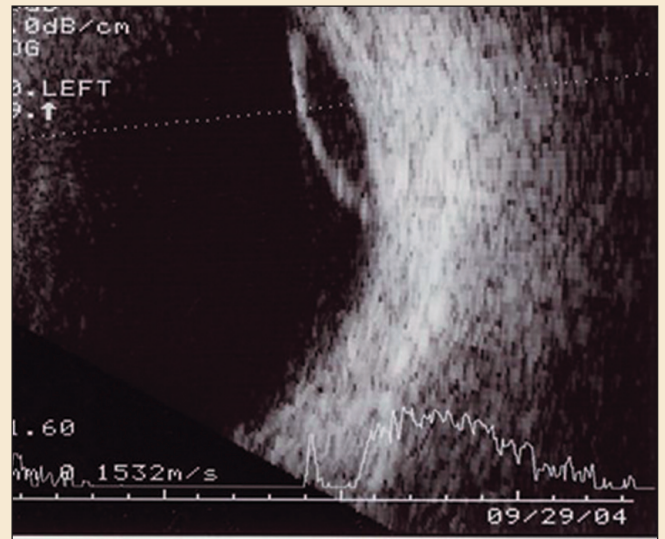
■ The **Optomap Retinal Exam** is available from Optos, 139 Forrest St., Marlborough, MA 01752; (866) OPTOMAP; Web site: www.optos.com.



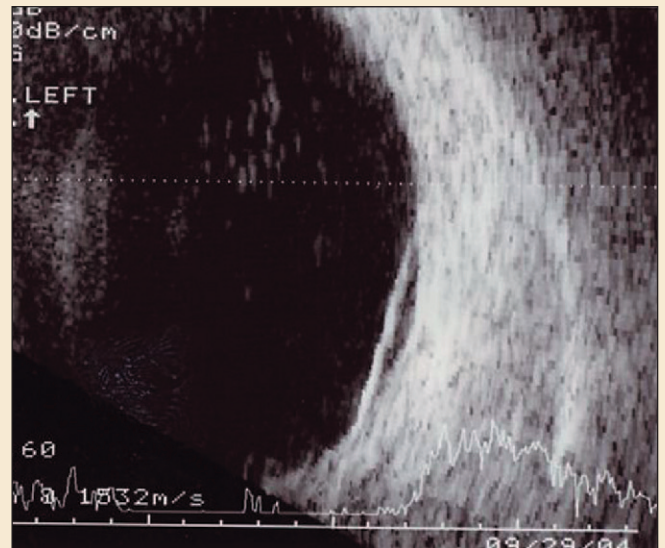
Left eye, Optomap: This superior-temporal lesion was detected by four BIO examiners.



Optomap, right eye: The Optomap Retinal Exam shows the inferior-temporal lesion that was missed by the four BIO examiners. The bottom image is magnified.



B-scan, left eye: B-scan ultrasonography confirmed the lesion that was detected by the examiners and imaged with the Optomap.



B-scan, right eye: B-scan ultrasonography confirmed the lesion that was imaged with the Optomap but missed by the four BIO examiners.