Charles N. S. Soparkar, M.D., Ph.D. James R. Patrinely, M.D. Department of Ophthalmology 6501 Fannin, NC-200 Houston, Texas 77030

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- Soparkar, C. N. S., Patrinely, J. R., Cuaycong, M. J., et al. The silent sinus syndrome: A cause of spontaneous enophthalmos. *Ophthalmology* 101: 772, 1994.
- Martelli, A., Hoyt, W. F., and Newton, T. H. Enophthalmos and orbital expansion from chronic sinusitis: CT evaluation with reformatted images. J. Clin. Neurophthalmol. 4: 167, 1984.

REPLY

Sir:

It was with great pleasure and interest that I read Dr. Patrinley and Soparkar's letter concerning "Silent Sinus Syndrome." When I first reviewed the literature and reported our clinical findings of atraumatic enophthalmos, I realized that this unique clinical observation to a plastic surgeon had been well documented in the literature since 1964. I appreciate the recognition of reporting the youngest patients who have presented with atraumatic enophthalmos. We realize that this was an atypical early presentation. Probably because of their young age, they sought medical treatment early to correct their ocular deformity.

Finally, I feel that it is important to recognize that there is a vast amount of literature published that will never appear in a plastic surgery journal. We should try to review periodically as much of this as possible that pertains to the surgical management of our patients. I feel proud to have been given the opportunity to present our review of this unique ophthalmologic presentation in the plastic surgery literature.

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A CHEAP IMAGING SYSTEM

Sir.

There are many ways to design your own inexpensive computer imaging system. ¹ Commercial systems vary in price from \$21,315 to \$37,650.

Imaging is mainly of use in rhinoplasty consultations. All images are limited by the resolution of the computer screen and are inferior to the resolution of a photograph.

My system is Mac-compatible (Apple Computer). A DOS card can add PC compatibility. The screen image is edited with the aid of a WACOM ArtZ 6×8 inch graphics tablet and a cordless pressure-sensitive stylus.

A sample system is as follows:

Power PC 6100/66-MHz 8-MB RAM/350-MB hard drive: \$1700

Power Mac AV card: \$460

Apple multiple scan 17-inch display: \$1000

(All of the above from Apple Computer, Cupertino, Calif.)
Radius precision color. Pro 24XP video card, Radius Corporation: \$300

WACOM ArtZ 6×8 inch tablet with cordless, battery-less pressure stylus: \$300

Sony Hi-8 video camera CCD: \$1600

Anthro Cart Ultra compact, 25 inches wide, 31 inches high, 19 inches deep: \$440

Tabletop tripod attachment for camera: \$100 (estimate)

Software requirements:

Adobe Photoshop 3.0: \$500

The patient sits on a stool in front of the video camera. Diffuse daylight is best for lighting. An image is captured. It may be possible to acquire the image from within Photoshop if a "plug-in" is available for the video-grabbing software. The profile image is cropped to leave enough of the head posteriorly to allow transposition of a profile image to the right or left of the original profile. The profile is selected with the "rectangular marquee" tool and then dragged to the right or left with the option key depressed. This leaves the original image in place, giving two profiles side by side for comparison. The image is magnified by a factor of two, and the contrast and brightness of the image are modified.

The "pencil" and "paint brush" tools are used to modify the profile. The background color is selected. The opacity of the brush or pencil is set at about 60 percent.

The program will draw straight lines by using the pencil or brush tool and holding down the Shift key between clicks. A new nasal or chin profile is drawn. The brush tool is used to further obliterate the old nasal outline or fill in the new outline of a chin implant, respectively. By adjusting the opacity, the original outline remains visible.

The steps to editing a frontal image are similar. The image is duplicated, and the two images are placed side by side. The best tools for the frontal image are the "smudge" tool and the pencil tool. The smudge tool is used to bring in the alar rims and narrow the bony side walls of the nose. New alar rims also can be drawn with the pencil tool. The tip can be elevated by inking in some shadow under the nasal tip with the pencil tool and then smudging it. Highlights can be created on the nasal tip in the same manner.

In conclusion, this is a simple imaging system using "off-the-shelf" hardware and software. The cost of this system is about \$6400.

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REFERENCE

1. Kirwan, L. Relatively inexpensive computer imaging systems (Letter). *Plast. Reconstr. Surg.* 88: 738, 1991.

VITILIGO AT INCISION LINES

Sir

Vitiligo is an acquired, often disfiguring pigmentary anomaly of skin manifested by depigmented white patches surrounded by a normal or hyperpigmented border. The depigmented skin lacks melanocytes. The patches are of various sizes and may have various configurations. The most com-