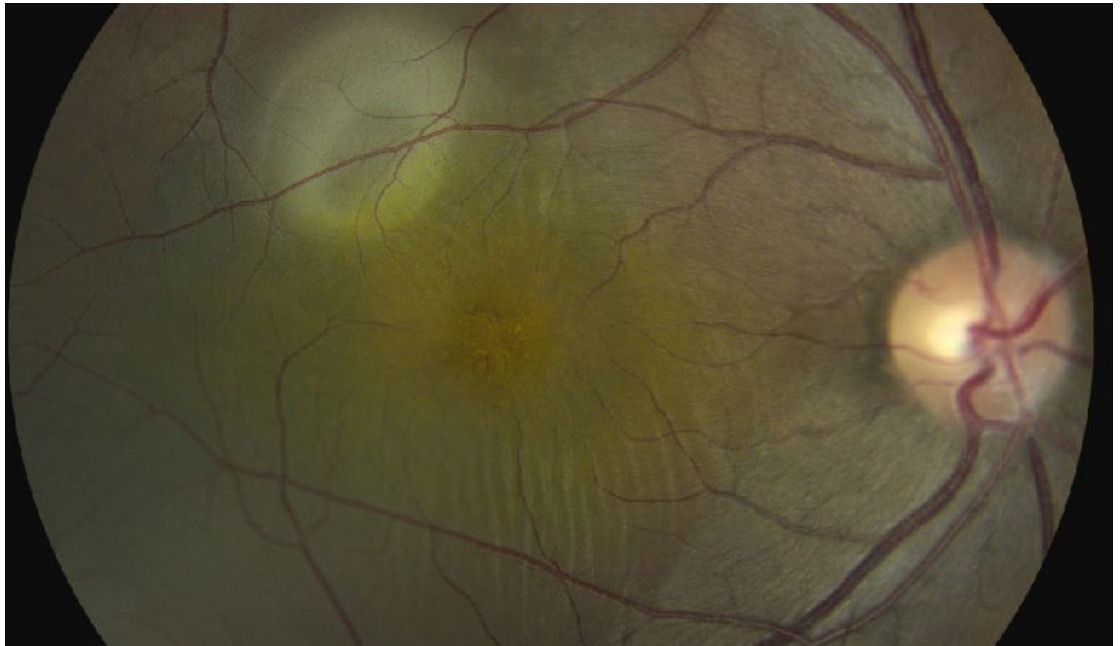


MYSTERY IMAGE
BLINK



WHAT IS THIS MONTH'S MYSTERY CONDITION? Visit aao.org/eyenet to make your diagnosis in the comments.

George Henry, CRA, Wheaton Eye Clinic, Wheaton, Ill.

LAST MONTH'S BLINK

Periorbital Subcutaneous Emphysema

A 79-year-old woman was seen for evaluation of significant right periorbital edema (Fig. 1) after a fall from a standing position. Reportedly, the swelling around the right eye developed soon after the injury when the patient pushed on a lump that had appeared along the gumline of her upper teeth. Computed tomography revealed a displaced fracture of the right maxilla and lamina papyracea as well as periorbital subcutaneous emphysema (Figs. 2A, 2B). The latter occurred when the patient blew her nose. Because the orbital periosteum was not violated by the fracture, air was forced into the subcutaneous tissues rather than the orbit. While the “bubble-wrap” appearance of the periorbital skin is uncomfortable and cosmetically unappealing, the subcutaneous location is preferred to the possible alternative, as it resolved spontaneously over the following days and caused no lasting insult to the visual system. The patient’s vision and extraocular motility were undisturbed.

Orbital emphysema may occur as air is forced into the orbit during nose-blowing, due to a continuity between the nasal cavity and orbit after fractures involving the paranasal sinuses. Air becomes trapped in the orbit by a one-way valve mechanism, as mucosa seals off the entry point once intranasal pressure falls below intraorbital pressure. In severe cases, the trapped air can cause an orbital compartment syndrome. Nose-blowing is common following an orbital fracture, as epistaxis and congestion of the nasal mucosa typically accompany such injuries. Patients with orbital fractures involving the paranasal sinuses should always be advised to refrain from nose-blowing for at least four weeks after injury.

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