A cautionary tale about a global problem

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From Peoria, IL: a 22-year-old woman kept seeing her family practitioner for 8 weeks because of persistent headache and then visual impairment. Since her brain CT was normal, she was told that the headache was benign and was given analgesics and reassurance. The fundi were not examined. (Some still insist on calling idiopathic intracranial hypertension “BIH,” maybe because the “B” is for blinding rather than benign). Seven weeks after the onset of headaches she went blind and was finally seen by an ophthalmologist who saw the fundi shown in the figure. The lumbar CSF pressure was greater than 500 mm H₂O. Despite immediate optic nerve sheath fenestration, she stayed blind.

From Sydney, Australia: a 37-year-old woman was seen 6 times this year in the same teaching hospital emergency department for persistent headache. On one visit she was examined by a neurology fellow who wrote a 3-page note but failed to mention the fundi. Since her brain CT and MRI were normal, she kept being told that the headache was benign and was given analgesics and reassurance. She then developed blurred vision and consulted an optometrist who found advanced papilledema and severe bilateral visual field constriction. Her CSF pressure was 560 mm H₂O. She had immediate optic nerve sheath fenestrations and then transverse sinus stenting. Miraculously, her vision is now almost normal.

Cases such as these sometimes, somehow get published.¹ Recent data indicate that the ophthalmoscopic skills of non-ophthalmologists/optometrists have, like the auscultatory skills of noncardiologists, become vestigial.² Obviously, any neurologist seeing a patient whose clinical presentation suggests a cerebrovascular problem will ask for echocardiography rather than rely on his or her auscultatory skills. In this issue of *Neurology® Clinical Practice*, Mackay et al.³ tell us that in any neurologic patient, particularly one with a headache, fundus photography is incomparably more reliable and useful than ophthalmoscopy by a non-ophthalmologist/optometrist. Now of course this does not mean that every practitioner needs to rush out and invest in a nonmydriatic fundus camera. But it does mean that the patient should walk 2 blocks to the local optometrist who does have one and come back straight away with the fundus photos on a USB stick. And we are almost there even with patients who can't even sit up—a new generation of handheld fundus cameras is on the way, and it will soon be possible for anyone with a smartphone to take a fundus photo. This article is a wake-up call to the profession. The message is that there is now an easy way of not missing blinding papilledema (or grade IV hypertensive retinopathy): order fundus photos—it's that easy. Predictably, the world will slowly move toward digital fundus photography. Growing awareness of the effect of missing critical diagnostic information will be the driving force to promote change.

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Figure Digital fundus photography of the posterior pole of both eyes (case 1)

Panel A shows marked elevation of the right optic disc with blurring of the disc margins, concentric retinal folds, and venous congestion. Frisen stage 5. Multiple peripapillary retinal hemorrhages are present. Panel B shows marked left optic disc elevation and retinal findings similar to those described in the right posterior pole.

Many of the then-essential skills that we gained during neurology training in the '70s have become obsolete. Maybe one day direct ophthalmoscopes will be found only in museums. Nonetheless, we maintain that in the meantime it is still important for neuro-ophthalmologists to teach basic ophthalmoscopic skills and obvious abnormal fundus findings to students and residents, who will then need to make ophthalmoscopy an integral component of every neurologic examination. For this to happen they will need to own and carry an ophthalmoscope of some sort, a pocket-size basic \$150 lens-free model (Optyse) or a luggable \$600 PanOptic with smartphone adapter, and of course mydriatic eye drops.

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