Asymptomatic swollen optic discs and CT scan

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A 10-year-old girl was referred because of refractory idiopathic intracranial hypertension despite lumbar puncture and acetazolamide. She was incidentally found to have optic disc edema in both eyes during routine examination attributed to raised intracranial pressure by her ophthalmologist 6 months prior.

She denied having visual loss, headache, nausea, diplopia, or tinnitus. On fundus, optic discs (OD) appeared swollen. However, elevated OD without hemorrhage, venous congestion, retinal exudate, and obscuration of the retinal vessels (figure 1A) in an asymptomatic

Figure 1 Nonmydriatic retinal photography (i.e., no pharmacologic pupil dilation required)

(A) Bilateral swollen optic disc appearance on fundus photograph. (B) Autofluorescent deposits in the right optic nerve head.

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Figure 2 CT scan showing calcium deposits (arrows) in both optic nerve heads

patient raised the possibility of pseudopapilledema.¹ Autofluorescent retinal photography showed autofluorescent deposits in the right OD (figure 1B), and review of her previous head CT scan highlighted bright spot of the optic nerve head (figure 2) leading to the diagnosis of optic nerve head drusen (ONHD).

DISCUSSION

ONHD are acellular calcified deposits in the prelaminar portion of the optic nerve head.² In children, ONHD are often buried, mimicking OD swelling.² They can be detected by autofluorescence (natural emission of light by components of drusen under short wavelength light illumination) showing white spots in preinjection retinal angiography. Calcified ONHD can also be seen on B-scan ultrasonography, and on CT scans as hyperdense areas within the optic nerve head.^{1,2} The impairment of visual acuity is rare but visual field defects are frequent. They can be present already in childhood and they can expand with age.²

In case of OD swelling, the possibility of pseudopapilledema from ONHD should first be explored to avoid invasive procedures such as lumbar puncture.

DISCLOSURES

The authors report no disclosures.

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