Teaching Neuroimages: Distinguishing Papilledema from Pseudopapilledema using Optical Coherence Tomography

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Article

A 71-year-old male presented to the emergency room with bilateral blurred optic discs, referred by his optometrist following a routine eye test. He had no visual or headache symptoms. Visual acuity was 20/20 bilaterally, fundoscopy at this time concurred with the optometry findings. Investigations for presumed papilledema were initially interpreted as normal (CT head/lumbar puncture). In clinic optical coherence tomography (OCT) imaging identified optic disc drusen (figure 1). The invasive investigations could have been avoided if an ophthalmology examination had been performed to exclude pseudopapilledema, as recommended.\(^1\) Optic disc drusen (ODD) are common in the general population (up to 2.4%).\(^2\) They are clearly visualised with OCT imaging including cross-sectional optic nerve head volume scans and blue autofluorescence (BAF), (figure 1D). Indeed, the CT head documented the drusen (figure 2). Although rarely ODD can coexist with papilledema, this is evident on both cross sectional OCT imaging and dilated slit-lamp biomicroscope exam.

Appendix 1

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Teaching Slides-http://links.lww.com/WNL/B299

References


**Figure legends**

Figure 1 Ocular imaging

Normal optic nerve head and optic nerve head showing multiple hyperreflective lesions A) Infrared image of the right optic nerve head. B) Infrared image of left optic nerve head, shows an irregular elevated shape with high reflectivity in the inferior nasal portion of the disc. C) Cross section OCT volume scan of left disc showing multiple hyperreflective changes around hyporeflective drusen (arrowed). D) OCT blue autofluorescence en face image of the optic nerve head showing multiple autofluorescent lesions throughout the inferior, nasal and superior portions of the nerve.
Figure 2 Neuroimaging

Axial CT Head slice showing a calcified drusen (bright white spot – arrowed) at the left optic nerve head.
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