

Shock-induced anterior ischemic optic neuropathy

Shock-induced [anterior ischemic optic neuropathy](#) (SIAION) is a known type of [optic neuropathy](#) in patients who experienced shock related to different etiologies such as [anemia](#) and severe intradialytic [hypotension](#) like in a patient. Nonarteritic anterior ischemic optic neuropathy (NAION) is the most common acute unilateral known type of optic neuropathy in older patients with vasculopathic risk factors such as [hypertension](#), [diabetes mellitus](#), and [obstructive sleep apnea](#). Although SIAION and NAION are similar optic neuropathies due to ischemia and, in particular, hypotension, they may have different pathogenic mechanisms (e.g., acute shock or intradialytic hypotension vs nocturnal hypotension), laterality (e.g., unilateral vs bilateral), and severity (e.g., light perception or worse vision).

Al Othman et al. presented a case with restricted diffusion on the apparent diffusion coefficient and the diffusion-weighted imaging confined to the optic disc head in a patient with pallid edema after intradialytic hypotension. Although DWI of the optic nerve is neither 100% specific nor 100% sensitive for ischemia, we believe that restricted diffusion of the optic nerve head in our case is a clinico-radiologic correlate to pallid edema in SIAION ¹⁾.

¹⁾

Al Othman BA, Naser M, Kini AT, Lee AG. Restricted Diffusion in the Optic Nerve Head After Shock-Induced Anterior Ischemic Optic Neuropathy. J Neuroophthalmol. 2020 Jan 29. doi: 10.1097/WNO.0000000000000897. [Epub ahead of print] PubMed PMID: 32028450.

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Last update: **2024/06/07 02:51**

