Idiopathic Stabbing Headache Associated With Monocular Visual Loss

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Background: Idiopathic stabbing headache, which is a brief, sharp, severe jabbing pain that is confined to the head, responds well to treatment with indomethacin sodium. It may occur as a primary entity but more likely is associated with other types of headache, including migraine.

Setting: Emergency department of a teaching hospital.

Patient: A 27-year-old man presented to the emergency department with stabbing, sharp pain in the right temporal area associated with complete loss of vision in his right eye. The patient had a history of migraine with aura since 1995.

Result: The patient was treated with oxygen inhalation and indomethacin, with complete resolution of his symptoms.

Conclusion: A case of idiopathic stabbing headache associated with monocular visual loss was relieved by oxygen and indomethacin therapy.

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LANSCHIE1 first described idiopathic stabbing headache as ophtalmodynia periodica in 1964. Since then, this disease has been designated by various terms, including ice pick–like pains, sharp short-lived headache, jolts and jabs headache, and idiopathic stabbing headache.1-6

According to the criteria of the International Headache Society,3 idiopathic stabbing headache is defined as “a pain confined to the head and exclusively or predominantly in the distribution of the first division of the trigeminal nerve.” The pain is stabbing in nature, lasts for a fraction of a second, and occurs as a single stab or a series of stabs.1 The pains are usually unilateral, but may be bilateral. There is a great variability in the pattern of attacks. Patients may experience between 1 and 50 attacks per day and have recurrences at irregular intervals (hours to days). Accompanying autonomic phenomena are absent. Reported triggers include physical exertion, bright lights, and head motion.3 The diagnostic criteria include the exclusion of other factors, such as a structural lesion, that can cause similar symptoms in the distribution of the affected cranial nerve.

We describe a patient with migraine and typical ice pick headaches that were associated with monocular visual loss and triggered by light.

REPORT OF A CASE

A 27-year-old man presented to the emergency department with stabbing, sharp pain in the right temporal area that was associated with nausea and complete loss of vision in his right eye. He noted multiple episodes, each lasting a few seconds, that occurred during a 3-hour period. Between episodes, the patient was free of headaches. The loss of vision, which was only in his right eye, was described as a black disc with sparkles of light around the edge. Visual loss and headache were precipitated by bright light. There was no other neurologic deficit. He had taken oral acetaminophen and diphenhydramine hydrochloride at home, without improvement. His medical history since 1955 was remarkable for migraine with aura, which he described as a halo around objects lasting up to 30 minutes. His family history revealed that his father also had migraine.

On physical examination, his blood pressure was 143/70 mm Hg, and his heart rate was 90/min. His mental status was normal and his speech was fluent. His visual fields were full, with normal fundi, and the
remainder of his cranial nerves were intact. However, the bright light of the ophthalmoscope precipitated an episode of headache associated with loss of vision that lasted several seconds. The findings of his motor examination were normal, and his deep tendon reflexes were 2+ bilaterally with downgoing toes bilaterally. No sensory abnormalities were found. His coordination, station, and gait were unremarkable. He had no bruits. A computed tomographic scan of his brain revealed no abnormalities.

He was treated with oxygen (8 L/min) for 15 minutes, with resolution of his headache and loss of vision. He was observed in the emergency department for 2 hours. During this time, he remained pain free and had no further visual episodes. He was discharged on a 1-week regimen of indomethacin sodium (25 mg three times a day), and over the next 10 months he experienced 3 recurrences of his ice pick headache, which occurred 3, 5, and 8 months after the initial episode. The recurrences were milder in intensity and duration and were not associated with visual loss. The first episode resolved spontaneously, and the other two were relieved by aspirin.

**COMMENT**

The short-lasting, primary headache syndromes may be divided into those exhibiting marked autonomic activation (conjunctional injection, lacrimation, and nasal congestion) and those without autonomic activation. Sharp, stabbing pain has been described in several disorders, including migraine, temporal arteritis, tension-type headache, and cluster headache. Some authors consider idiopathic stabbing headache as an incomplete migraine. Raskin and Schwartz studied the incidence of ice pick headache in 100 patients with migraine and 100 control subjects and found that 42% of the patients with migraine experienced sharp pain, compared with 3% of the control subjects. They noted that ice pick headache could be precipitated by light and that it may occur independently of the typical migraine. Some cases were associated with scintillating scotoma, paresthesia, or syncope.

We report a case of ice pick headaches associated with monocular visual loss with scintillating scotoma in a patient with a history of migraine. To our knowledge, this is the first report of monocular visual loss with scintillating scotoma associated with ice pick pain. Other diagnostic possibilities in this case included trigeminal neuralgia, short-lasting unilateral neuralgiform headaches with conjunctival injection and tearing, and chronic paroxysmal hemicrania. The absence of cutaneous triggering factors and the location and duration of the pain made the diagnosis of trigeminal neuralgia unlikely, and the lack of accompanying autonomic symptoms helped to rule out the diagnosis of short-lasting unilateral neuralgiform headaches with conjunctival injection and tearing or chronic paroxysmal hemicrania. The visual disturbances associated with migraine can be either positive phenomena or negative phenomena, such as monocular visual loss. These visual disturbances are believed to be due to vasospasm of the retinal artery.

There are few studies concerning the treatment of ice pick headaches. Some patients respond to the administration of 50 mg of indomethacin sodium 3 times daily. The response to indomethacin is variable, ranging from complete relief to none at all. The onset of pain relief in patients who are treated with indomethacin varies between a few hours and a few days. There have been anecdotal reports about the efficacy of the inhalation of oxygen in the treatment of migraine, but the data are not compelling. The mechanism of improvement with oxygen therapy is unclear. Our patient had rapid relief of his pain and visual loss with indomethacin and oxygen therapy. Further confirmation of the usefulness of oxygen therapy in this setting is needed.

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**REFERENCES**