

Stabbing Headache in a Teenager

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Key words: idiopathic stabbing headache, migraine, hemicrania continua

Abbreviation: ISH idiopathic stabbing headache

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CLINICAL HISTORY

A 17-year-old adolescent girl was seen with a 4-year history of head pain which, initially, was occasional. After gradually increasing in frequency during the last year, this pain has been occurring daily. She describes a stabbing pain in the left or right temple lasting seconds. She often has multiple recurring pains (pain for seconds, brief remission, recurrent pain, etc) with a total duration from about 5 seconds to 2 minutes occurring one to four times daily. There is also a several-year history of occasional bifrontal throbbing headache associated with nausea and light and noise sensitivity which can last for hours. Her mother also has migraine. Neurologic examination is normal.

Questions.—Would you recommend any testing? How common is idiopathic stabbing headache in children and adolescents? What is the possible duration and distribution of the pain? Is there a relationship to migraine? What treatment would you recommend? What is the prognosis?

EXPERT COMMENTARY

Testing.—The headache presented by this 17-year-old adolescent girl can be characterized as a pro-

gressive recurrent headache with short-lasting paroxysms and without any associated symptoms and signs. This clinical pattern suggests the diagnosis of idiopathic stabbing headache (ISH).^{1,2} Although the long duration of the headache history (4 years) and the normal neurologic examination suggest the head pain syndrome is “primary” in origin, the International Headache Society (IHS) diagnostic criteria for ISH state that this diagnosis “depends upon the exclusion of structural changes at the site of pain and in the distribution of the affected cranial nerve.” Considering this and the change in attack frequency that seems recently to have occurred, we may wish to move to further neurodiagnostic testing.

Young and Silberstein have reported that the following lesions may be associated with short-lasting attacks of head pain: colloid cyst of third ventricle and third ventricular tumors, pineal region tumors and masses, Arnold-Chiari malformation, platybasia/basilar impression, and pheochromocytoma.³ Tozzi et al described two children with stabbing headache secondary to craniovertebral junction abnormalities, and Mitchell et al reported the stabbing pattern in patients with headache secondary to chronic subdural hematoma.^{4,5}

In this case, I would suggest cranial and cervical spine magnetic resonance imaging (MRI) before accepting the diagnosis of ISH.

How Common Is Idiopathic Stabbing Headache in Children and Adolescents?—In a population study conducted by personal examination of 740 individu-

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als in Copenhagen, Rasmussen and Olesen estimated the ISH prevalence to be 2%.⁶ In a population study that relied on a questionnaire, Monteiro reported a 0.2% prevalence.⁷ In a large-scale study of headache epidemiology in Vågå, Norway, Sjaastad and coworkers examined 1838 adult parishioners (18 to 65 years of age) and found the prevalence of ISH to be as high as 35.2%.¹ Surveys of children or adolescents evaluated in headache clinics have recorded ISH prevalences of 3.3% (children and adolescents), 0.4% (children), and 0.2% (children).⁸⁻¹⁰

With the exception of the findings of Sjaastad and coworkers,¹ it may be that these figures significantly underestimate the prevalence of ISH, as these stabbing headaches may be evanescent (and thus soon forgotten) or deemed unimportant by those affected.

Possible Duration and Distribution of Pain.—The IHS diagnostic criteria indicate that ISH attacks last a fraction of a second. Nevertheless, the epidemiological study conducted by Sjaastad et al and a detailed clinical study by Pareja et al demonstrated that a 1- to 3-second duration seems to be the rule.^{1,11} Attacks lasting more than 3 seconds were reported in only 5.4% of the group studied by Sjaastad and in 18% of the group studied by Pareja et al. Dangond and Spierings have described two patients with ISH whose attacks lasted more than 10 seconds.¹² According to Sjaastad, long-lasting stabbing attacks may have a different etiology.

According to the IHS diagnostic criteria, the pain of ISH is exclusively or predominantly felt in the distribution of the first division of the trigeminal nerve (orbit, temple, and parietal area), as we see in this case. In contrast, Martins and colleagues reported six patients whose pain was felt in the retroauricular and occipital regions.¹³

Relationship to Migraine.—That ISH is more prevalent in patients with migraine often has been reported in the literature. There is also reportedly an association between ISH and hemicrania continua, chronic paroxysmal hemicrania, tension-type headache, and cluster headache.¹⁴⁻¹⁷

In a series of 83 juvenile patients, however, Soriani et al found no association between ISH and other

headaches.⁸ This finding may indicate a peculiarity of ISH in children and adolescents.

Treatment.—I would recommend indomethacin 50 mg three times a day, a treatment proposed by Mathew, Medina and Diamond, and other authors.^{18,19} Unfortunately, however, ISH does not invariably respond to this medication.

Prognosis.—There is no prospective study concerning ISH prognosis. On the pessimistic side, Sjaastad et al described patients under 65 years who experienced ISH for 40 years.¹

Even so, if this young woman does respond to indomethacin, I would suspect her long-term prognosis to be favorable.

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