## Chronic Daily Headache (2000)

# Randall Weeks, PhD New England Headache Center Greenwich, Connecticut

#### Background

A recent study reported that 91 percent of adolescents in the United States had experienced headache over the past 12 months, with about 30% reporting headache once per week or more(1). Boys were more likely to experience episodic headaches while girls tended to experience chronic and recurrent headaches (10.7% of females reported almost daily headaches). This article will examine clinical issues with respect to chronic daily headache (CDH) in adolescents.

Transformed migraine, chronic tension-type headache, new daily persistent headache, and hemicrania continua are common categories applied to pediatric CDH. One study, however, found that 35 percent of patients did not fall into any of the above groups(2). Head trauma, as well as numerous psychological hypotheses have been offered to account for the development and maintenance of chronic daily headache in children.

#### Clinical Characteristics

As with the adult type, chronic daily headache in children (by definition) occurs at least 15 days per month. Frequently, pain has been described in various locations in the head but is frequently bifrontal. Duration can be quite variable, and the disorder might present with relatively brief, but frequent, episodes of headache which grow into constant and ongoing pain. There are cases reported, however, of a new persistent daily headache which presents with continuous pain from onset.

A comprehensive interview is important to understand not only the frequency and presentation of the headache but to also allow the clinician an opportunity to understand the context in which the pain occurs, and its impact on the child's world. A complete medical history is important to rule out structural and systemic factors. Attention to behavioral factors such as sleep patterns, eating habits (including food triggers), and other behavioral markers that could suggest an underlying comorbid affective disorder is important. Previous testing and treatment should also be noted.

Family history with respect to headache as well as psychiatric issues should be carefully assessed. In addition, any areas of family stress or conflict should be noted. Academic history, peer relations, etc. are also important parts of the clinical interview. Finally, assessment of personal history should include how the ongoing pain has affected socialization, exercise, and the experience of pleasurable events in the patient's life. Brain imaging studies have limited value in evaluating headaches in pediatric patients unless there is clinical evidence of an underlying structure or lesion. Similarly, EEG studies performed on patients without clinical indication have not been found to contribute to the diagnosis or treatment of these patients.

### Treatment

The pediatric committee of the American Headache Society offers anecdotal evidence that treatment with tricyclic antidepressants, calcium or beta blockers, and valproate has been effective in treating children with chronic daily headache(3). Other researchers, however, point to studies that suggest that headaches in children tend to improve spontaneously and believe that preventive medicines should only be used in rare individual cases. Immediate relief medications typically include over-the-counter preparations such as acetaminophen or NSAID's. Should these not be effective, prescription NSAID's and Midrin may be of benefit. Triptans (used in selected patients for specific migraine attacks) provide an option for more severe pain. The clinician must be careful to avoid "rebound headaches" by not allowing the patient to use abortive medications more than three days per week. If the patient is experiencing pain

that requires acute treatment on a more frequent basis, prophylactic medication should be strongly considered.

Few would argue the importance of cognitive/behavioral treatment combined with self-regulation strategies. Home and school based relaxation programs have been shown to markedly reduce headache intensity and duration. Other authors add that such relaxation programs must include behavioral and cognitive treatments in order for patients to maintain gains that have been learned. In fact, it is thought that the cognitive changes that bring about the development of coping skills and improved self-efficacy account for lasting improvement in symptoms.

Behavioral strategies that target consistency of sleep and diet (with attention to any dietary triggers) have also been of benefit in these patients. Exercise and increasing pleasurable events (and, therefore, decreasing "sick role" behavior) are also important components to a good treatment program. Finally, psychotherapy is helpful to deal with any underlying mood issue, family or peer conflict, school phobia, or separation anxiety.

#### Conclusion

In young people, the prevalence of headache in general, and chronic daily headache specifically, is a significant medical problem in this country. While establishing a diagnosis may be somewhat difficult (as these headaches may present somewhat differently than headaches in adults), the importance of a careful clinical interview (that includes family members) provides useful data with respect to formulating a valid diagnosis and treatment plan. Treatment should be multidimensional and include appropriate pharmacological care as well as cognitive/behavioral strategies.

#### References

- 1. Rhee H. Prevalence and predictors of headaches in U.S. adolescents. Headache. 2000;40:528-538.
- 2. Gladstein J, Holden EW. Chronic daily headache in children and adolescents: A 2-year prospective study. Headache. 1996;36:349-351.
- 3. Gladstein J, Holden EW, Winner P, Linder S, and the Pediatric Committee of AASH. Chronic daily headache in children and adolescents: Current status and recommendations for the future. Headache. 1997;37:626-629.