THE HEADACHE CASE HISTORY

by Sandor Hernandez Morales, ABOC, LDO, NCLEC

*note: Mayra Rullan, OD, FAAO contributed to this article by reviewing the first draft.

Introduction

One of the most common complaints we hear in optometric practice is that of headache. Patients in all age groups and demographics complain of many different symptoms of discomfort that they commonly describe in this manner. The term “headache” can be used to denote a myriad of conditions that may range from simple asthenopia or eyestrain, migraine, sinusitis, a developing cerebrovascular accident or stroke, or worse yet, a space occupying lesion or brain tumor. It is for this reason that we must learn to look for specific characteristics that can alert us that perhaps something more serious is taking place.

Many times, the important task of data collection in the case history falls upon paraoptometric technicians. Good clinicians will say that in most cases the history leads to the diagnosis. It is important to be on the lookout for certain complaints from patients that will help us categorize and triage headaches because this may save lives. The data collection begins as soon as the patient enters the office and continues throughout the patient’s visit. Important physical cues such as a person’s gait, posture, and even their facial expressions can begin to clue you in on what underlying issues they may have. The way a person acts or expresses himself, interactions with the office staff, or how his reflexes respond to simple ordinary circumstances like an unexpected noise in your office, can offer great insight into a person’s neurological health. Many times patients themselves will tell the technician of certain symptoms that they may or may not tell the doctor. Being on the lookout for these problems may emphasize an important aspect of the history that otherwise could have been overlooked.

Important Considerations

Uncorrected or poorly corrected vision will never cause pain. If a patient is reporting pain, this red flag should immediately alert the technician that something besides vision is probably affecting the patient. Identifying these characteristics early on in the patient history will greatly aid the doctor in identifying the underlying cause. It is important to distinguish if the sensation a patient is feeling is painful, throbbing, pressure, or more of a dull strain. Are there accompanying symptoms that point toward visual problems or is it more a feeling of pain? If there is true pain, is the amount the same every time the headache occurs, or is it worse with each presentation? For how long has this occurred? How bad is the pain on a 1 to 10 scale? Pain that is so severe as to wake a patient up in the middle of the night should raise concern as this is not...
normal and can be one of the first signs of serious brain disease. Are the headaches associated with visual tasks or are they random? Are the patient’s pupils equal in size and shape? Is there a difference from one side of their face or body when compared with the other? Is it an acute singular presentation or has it been progressive or worsened with time?

It is also important to consider what other risk factors the patient presents. Gender, age, and other demographic information may be useful when trying to identify persons at risk for certain conditions. Is there a history of hyperlipidemia or high cholesterol? Is the patient a smoker or do they have a high intake of alcohol (since this increases the risk of vascular problems)? Are there other family members that have similar symptoms or related diagnoses? Is the patient undergoing medical or pharmacological treatment that may be causing the symptoms? All of these are important factors that play an important role in distinguishing “good” vs. “bad” headaches. These considerations should help the technician along a path of asking more inquisitive questions that may provide valuable insight into whatever issues the patient may be having.

“Old” or Chronic Headaches
When considering the degree of concern that one should have over specific kinds of headaches, it is important to classify the different headache subtypes. In general, headaches where the discomfort is chronic or on a regular basis are usually less alarming than acute onset conditions, although they are certainly not to be taken lightly. These headaches can be just as serious as acute onset conditions, but the urgency of the necessary referral to a specialist may be a bit more relaxed. The difficulty lies in distinguishing if, in fact, the condition is chronic or just appears that way. This is especially true of patients who are not very expressive or descriptive or who wait a long time before seeking treatment. An acute onset condition could have manifested itself long before the patient presents to the clinic and may be masked as a chronic condition simply because the patient has waited a long time to seek treatment.

Sometimes the patient may be at your office for a routine exam and in the process of the case history these important issues may be identified without the express manifestation of the patient about that particular problem. Here, the technician’s role in asking probing, open-ended questions is especially important (although this technique should always be employed throughout the history gathering session). This is an example of the unique role that eye examinations play as first line primary medical care since many times patients will routinely seek eyecare before they will seek general medical care. Here, the paraoptometric plays an important role in the early identification of characteristics of conditions that may only have an indirect association with vision but that would otherwise go unnoticed until after an event has already happened.

Eyestrain
A type of headache that develops after reading or performing a visually demanding task, that is located above the brow and may be described as “pulling” the eyes, without pain,
may be indicative of asthenopia. The eyestrain caused by a prolonged visually demanding task is the reason for the discomfort. Prescribing corrective eyewear or employing visual therapy (or a combination of the two) will usually alleviate the symptoms and get rid of the headaches.

**Stress**

Another type of chronic headache is the tension or stress headache. It is accompanied by non-throbbing, bilateral pressure over the head, without nausea, that feels like a tight band and usually affects women more than men. This headache is commonly treated with aspirin or over the counter non-steroidal anti-inflammatory drugs.

**Cluster**

A cluster headache is another headache that falls within this category. Men are affected more than women, onset is usually before age 25, and symptoms usually occur at night with severe discomfort that may wake up the patient. They tend to recur daily for weeks to months and may have sporadic periods of remission. A referral to an internal medicine specialist is usually warranted for comanagement.

**Migraine**

The migraine headache is another common diagnosis. Here, the presentation is usually unilateral, affects women more than men, and onset is mostly before age 40 more commonly in those with a family history of this type of headache. It may be accompanied by visual or auditory aura (sensory symptom that precedes the headache), photophobia, nausea, and may be triggered by certain foods or particular circumstances. It usually has a pulsating quality. A visual field exam will convey valuable diagnostic information about these patients. Depending on the severity, these patients may have to be referred to an internal medicine specialist for co-management.

**Sinusitis**

The sinus headache tends to be seasonal with discomfort of the maxillary sinuses of the face and deep in the nasal sinuses. Patients often express the feeling of pressure inside the face that may worsen when bending forward, sneezing, or coughing. Oral antihistamines, antibiotics, or nasal vasoconstrictors are indicated for relief and a referral may be warranted if symptoms don’t subside.

**“New” or Sudden Onset Headaches**

A “new” or sudden onset headache is generally more alarming than a more chronic or recurrent one, although the latter can be equally as serious. In some of these cases, the onset of the headaches is more acute and rapid. However, it is important to note that they are only “new” when they first occur and sometimes patients may wait a long while before going into the office for treatment. Careful attention must be given to distinguish if the onset of the condition was acute or longstanding and this should be clearly documented in the patient’s optometric record. Other types of acute headaches
suddenly appear and gradually worsen with each recurring episode. These, too, are serious differences that will aid in identifying the correct diagnosis.

**Degenerative Disease**
A headache that is painful and progressive may imply a compression-related condition, such as a tumor or a degenerative condition like Myasthenia Gravis or Multiple Sclerosis. Here, it is imperative to rule out life-threatening diagnoses.

**Severe Pain**
Headaches that are accompanied by vomiting and visual field loss, loss of consciousness, trauma, or extreme pain can be indicative of a brain hemorrhage and a referral to a neurologist may spare this patient’s life. Patients will often say that it was the “worst headache” they have ever experienced in their entire life. Other new headaches that are throbbing and are accompanied by neck stiffness can signal to meningitis or encephalitis and may also be life threatening.

**Stroke**
A type of sudden onset headache where the patient loses control over part of their body may be indicative of a stroke. Here, it is not uncommon for patients to experience a series of temporary episodes before the actual stroke (known as transient ischemic attacks (TIAs)). We often associate strokes as having longstanding physical effects. However, many times these small short-lived episodes may occur as a warning and happen in a way that may have momentary passing effects that may be easily overlooked. Sometimes patients report temporary loss of vision that is known as amaurosis fugax. Identifying these pre-stroke TIAs is really significant in the prevention of larger scale cerebrovascular events that may leave permanent consequences or even death. Early detection and identification is the key to preventing life-threatening outcomes.

**Glaucoma Attack**
Painful headaches with associated red eye and nausea may signal an acute angle closure glaucoma attack, a potentially blinding ocular emergency. Rapid treatment is essential to preserving these patients’ vision.

**Temporal Arteritis**
Another category of “new” headaches has a more insidious onset. Here, we find a headache that affects the older patient (age 65 or so), may present at first with scalp tenderness and difficulty chewing, and may be indicative of carotid artery disease and temporal or giant cell arteritis. The arteries that supply the eyes and other important brain structures progressively become clogged and the inflammation that results has detrimental effects to the patient’s vision (among other problems). Early detection is essential for a good outcome since a long-term regimen of oral steroid therapy is indicated for these patients.
Brain Tumor
If a middle-aged person experiences a non-specific headache that is worse on awakening, possibly includes diplopia or double vision, may create nausea, or gets worse in different positions or postures, may indicate an intracranial mass or tumor.\(^1,2\) Again, early detection is crucial in determining the patient’s quality of life and life expectancy. Pseudotumor cerebri (a condition that is treated as a tumor unless proven otherwise) is a type of “new” headache that presents with transient obscurations of vision, usually in obese females, with nausea, and double vision.\(^1,4,5\)

Conclusion
Early detection and classification of headaches will make a world of difference in a patient’s quality of life, and may in fact save them from serious illness or death. While most of this responsibility befalls the optometrist or ophthalmologist, it is important that the paraoptometric technician have a sense of the significance of the data being collected and the implications this data reports.\(^5\) Paraoptometrics are given a grave responsibility as data collectors. The consequences of a patient “slipping through the cracks” are too severe to be taken lightly. While it is fortunate that most of patients do not have undiagnosed life-threatening neurological conditions, we should assume that they all do. I remember one of my professors making the point that every patient should be suspected of having the worst possible condition until it is ruled out. If we take this cautious approach then we will be less likely to miscategorize conditions and make mistakes that can have serious repercussions. It is with this mindset that we make a difference and may indeed spare someone their life, or at least their vision.

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Footnotes

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Select the option that best answers the question.

1. All of the following are types of headaches except:
   a. Migraine
   b. Asthenopia
   c. Focused
   d. Cluster

2. Which of these headache characteristics would raise the most concern?
   a. Headache that awakens the patient in the middle of the night
   b. Headache that occurs in the same manner for the past eight years
   c. Headache that occurs yearly during allergy season
   d. Headache that occurs after prolonged reading

3. __________ headaches generally first occur in men under the age of 25.
   a. Migraine
   b. Sinusitis
   c. Stroke
   d. Cluster
4. Which of the following least contributes to the headache case history?
   a. The manner in which a patient communicates with the office personnel
   b. A patient's preference for rimless mounted spectacles
   c. A patient's description of a recent car accident head injury she suffered
   d. A patient’s inability to completely close one eye

5. Women tend to experience ___________ headaches more than men.
   a. migraine
   b. painful
   c. drug-related
   d. night

6. The case history data collection begins:
   a. with a questionnaire the patient fills out
   b. with the doctor’s examination
   c. whenever the doctor walks into the room
   d. as soon as the patient walks into the office

7. When a patient reports a headache with a sharp throbbing pain that forces them to vomit:
   a. it is most likely due to an outdated spectacle prescription
   b. it is a serious sign that should immediately raise concern
   c. it should not cause too much concern since this is a common benign complaint
   d. they should discontinue contact lens use for two weeks

8. Headaches are commonly found in
   a. males
   b. females
   c. all demographics
   d. elderly men

9. Family history of headaches
   a. is not correlated with migraine headaches
   b. plays a role in certain types of headaches
   c. is necessary for the diagnosis of a cluster headache
   d. is not really an important factor in the headache case history

10. All of the following headaches are acute onset except:
    a. Sinusitis
    b. Stroke
    c. Meningitis
    d. Encephalitis

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