

Euphoria Preceding Migraine Headache Episodes: A Case Report

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We report a case with euphoria preceding migraine headache, reported for its rare presentation. A 30-year-old lady presented with episodic headache for 12 years and three episodes of seizure in last two years. At presentation, she was euphoric with a sense of impending headache. She would also have blurring of vision for 15-30 minutes immediately prior to headache. Her headache was associated with photophobia, phonophobia, and nausea. She had headache other times also without loss of consciousness. With the impression of "migraine headache with aura with seizure", she was put on analgesic and sodium valproate. She responded well and was asymptomatic at one year follow up.

Key words: aura, classical migraine, elevated mood, prodrome

A classic migraine consists of four phases namely premonition, aura, headache proper and postdrome. Rarely, patients of migraine may have elevation of mood during prodrome and aura.^{1,2}

Symptoms typical of the prodrome are food cravings; constipation or diarrhea; mood changes- depression, irritability; muscle stiffness, especially in the neck, fatigue, increased frequency of urination etc.^{1,3} Consistent pattern with elevation of mood preceding migraine headache episodes, though reported, is not common.¹

In contrast to 'common type' which is relatively more common, some one fifth to one fourth of the migraineurs classified as 'classic type' have a variety of aura.^{1,3-5} Among the auras, visual and sensory are common; motor and autonomic less common and psychological symptoms like dysphoria and irritability are even less seen.^{1,5} Elevated mood is rare as an aura in migraine headache.^{1,6}

The index case had about 12 year history of severe intense pulsating headache fulfilling International Headache Society (IHS) headache classification criteria for 'migraine with aura'⁷ with headache preceded by euphoria. The patient had developed a sense of warning with euphoria for intense headache and had presented to psychiatry OPD in anticipation of the headache episode in euphoric state. This case has been reported here because of its rare presentation.

Case Report

A 30-year-old married lady was brought to emergency room with the complaints of episodic headache for last 12 years and three episodes of loss of consciousness in last two years.

She had episodes of pulsating severe headache for last 12 years becoming more frequent for last 2-3 years with frequency of 1-3 times a week. Her headache was mostly bi-temporal. It was associated with photophobia, phonophobia, and nausea. One hour to one day prior to the start of severe incapacitating headache, she would feel fresher, more energetic, and happier from inside. She grades 'grandiosity' of 'Brief psychiatric rating scale' (BPRS) 6, out of 7.⁸ BPRS is a clinician or trained person administered instrument useful to grade a variety of psychopathology, validated world wide. Her appetite would increase. Though, she was aware about the state, she could not control over the feeling. As stereotypically the feeling was followed by intense headache, she was worried once she started feeling cheerful. Immediately prior i.e. starting about 1-5 minutes before headache, she would have blurring of vision for 15-30 minutes.

Her headache would last 3-4 hours to 1-3 days. During headache, she would however feel sad, weak, anxious and irritable. Her scores in 'anxiety', 'tension' and 'motor retardation' of 'BPRS' during headache were 5 i.e.

moderately severe while 'depressed mood' was 7 meaning extremely severe. The pattern of her episodes or the sequence of symptom appearance was more or less similar though the episodes vary in duration. She would be fine when there was no headache.

There were three episodes of loss of consciousness in last two years, including the one when she had been brought to emergency. In all these episodes, she felt euphoric the previous day of the night when she would get up suddenly from the bed, would stare vacant sometimes associated with uprolling of eyes, frothing from mouth, stiffening of the upper limbs. She would then sleep.

On examination, she was over cheerful, confident and energetic. She was worried about imminent headache at the same time when she was euphoric. There were no hallucination, delusion or obsession; nor any focal neurological signs, features suggestive of eye, ear, nose, and throat, dental or other systemic diseases (also significant contributory role ruled out by respective referrals).

With the impression of 'migraine headache with aura' and 'seizure disorder', EEG (electroencephalogram), computerized tomography (CT) of head and hemogram were advised. She was put on ibuprofen and paracetamol combination when needed. Her EEG showed 'sharp paroxysmal activities in the form of independent spikes, generalized spikes suggestive of generalized seizure with multiple foci, more in the right fronto-central and left temporal regions'. Her CT and hemogram were normal. She was given sodium valproate and has been doing well for last 1 year. Though she had mild headache sometimes when she had to work in the sunlight, it has been tolerable and not associated with feeling of euphoria.

Discussion

The signs and symptoms of migraine vary among patients. The four phases of a typical migraine attack are common among migraine patients but are not necessarily experienced by all.¹ Even though the sequence of development of symptomatology is usually similar in a particular patient, the phases and the symptoms experienced during them can vary from one migraine attack to another in the same migraineur.

Prodromal phase may consist of altered mood, irritability, depression or euphoria, fatigue, yawning, excessive sleepiness, craving for certain food (e.g., chocolate), stiff muscles (especially in the neck), constipation or diarrhea, increased urination, and other vegetative symptoms. These symptoms usually precede the headache phase of the migraine attack by several hours or days, and the experience teaches the patient or observant family how to detect that a migraine attack is near as in this case. The patient had developed a sense of warning with the euphoric feeling. The reported case had euphoric state possibly as the feature of 'prodrome', which occurs hours or days before the

headache. Though elevation of mood has been noticed by some authors as an aura,^{1,6} such a euphoria would not be as long as a day or so as in this case. And, this lady also has blurring of vision immediately prior to headache which is more likely to be an aura.

The migraine aura is comprised of focal neurological phenomena that precede or accompany the attack. They appear gradually over 5 to 20 minutes and generally last less than 60 minutes. The headache phase of the migraine attack usually begins within 60 minutes of the end of the aura phase, but it is sometimes delayed up to several hours, and it can be missing entirely. Symptoms of migraine aura can be visual, sensory, or motor or autonomic in nature.^{1,3-5}

Other symptoms of the aura phase can include auditory or olfactory hallucinations, aphasia, vertigo, tingling or numbness of the face and extremities, and hypersensitivity to touch. Psychological symptoms are not common and euphoria is even less common as a feature of migraine aura.^{5,6}

The diagnosis of migraine without aura, according to the IHS, can be made according to the following criteria- 5 or more attacks, 4 hours to 3 days in duration 2 or more of-unilateral location, pulsating quality, moderate to severe pain, aggravation by or avoidance of routine physical activity and 1 or more accompanying symptoms- nausea and or vomiting, photophobia, phonophobia ("5, 4, 3, 2, 1 criteria"). For migraine with aura, only two attacks are required to justify the diagnosis.

The patient may feel tired, "washed out", irritable, listless and may have impaired concentration, scalp tenderness or mood changes during prodrome phase. Some people feel unusually refreshed or euphoric after an attack, whereas others note depression and malaise. Often, some of the minor headache phase symptoms may continue, such as loss of appetite, photophobia, and lightheadedness. Reviewing the literature, the mood change can be found as feature of any phase of migraine headache in one hand and on the other, migraine has been closely associated with bipolar mood. This case raises few questions like-

1. Is the euphoric mood the feature of migraine prodrome or an aura?
2. Is it a form of bipolar mood disorder?
3. Is it a part of incipient seizure phenomenon? or, is it a separate phenomenon?
4. Are migraine, bipolar mood and seizure separate manifestations of single disease entity?

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