

## CERTAIN HALLUCINATIONS PECULIAR TO MIGRAINE

CARO W. LIPPMAN

The great variety of hallucinations which precede the headache in migraine is little known to the medical profession. To most physicians the term "migraine" means merely a one-sided headache associated with nausea or vomiting, accompanied in some cases by eye disturbances, and associated with intervals of complete well-being.

Those who have handled numbers of these cases recognize the protean nature of the symptomatology. They have noted the various hallucinations of taste, smell, and hearing, the irritability of the patient or its rarer opposite, euphoria, lassitude, etc., which precede the attacks. Likewise, many clinicians have noted the "migraine equivalents"—in which the headache attack is replaced by a period of melancholia, paroxysmal tachycardia, or attacks of abdominal pain, etc.

So far as I know, there is no description in the migraine literature of hallucinations of the sense of body image, in which the patient has the feeling that the entire body, or certain parts of the body, have become distorted in size and shape.

Over a period of eighteen years of intensive migraine studies I have collected many histories of such hallucinations from both men and women. In my earlier years I rarely got this type of history. Later I learned to give the patient a general picture of migraine and to tell him stories of the experiences of other patients. In the last ten years I have asked the direct question: "Do you have any unusual body sensations just before the onset of your headache, during the attack, or just after the headache?"

Those patients who have these hallucinations worry about themselves, fearing that they are on the road to insanity. They usually confess to me that they have never told another doctor about their experiences because of fear of being thought "crazy." As soon as they are reassured that their sensations are not unique, and after they are allowed to chat with other migraine patients who have had similar hallucinations, they cease to be afraid, and view their experiences with a sense of mild amusement.

This hallucination—this sense of distortion of the body image—is not associated with any great emotional upset because the patient has learned long before he comes to me that the sensation is of short dura-

tion, and that what is happening is not real. He looks in the mirror and does not see it; he touches his body with his hands, and finds that what he feels is happening to him does not exist.

Those patients who have periodic one-sided headaches shortly after the onset of the hallucination recognize its connection with migraine. *However, there are a great number of cases in which the hallucination constitutes the entire attack. No headache follows.*

Mere reassurance does not relieve the condition, but under treatment with sex hormones, the symptoms, including the headaches, disappear for prolonged periods. They may return with the cessation of treatment.

I have said the literature contains no descriptions of such hallucinations. A possible exception is the "unique" case described by Oppenheim, where each attack of headache "was preceded by typical cerebellar symptoms . . . at the same time there existed the sensation that his body or individual parts thereof were doubled in size. . ."

For the purpose of brevity I have selected the following 7 typical case histories from my large collection of similar histories. In each case the hallucinations appear either before, during, or after the headache attack. Each and every one of these people is free of neuropathic or psychopathic inheritance. They, themselves, one or both parents, and/or siblings have classic migraine. They are above the average in business or professional achievements, or they are good housewives and mothers, busy and adequate to the world around them. They are normally sexed and highly intelligent.

#### CASE REPORTS

*Case 1.*—M. G., age 38. Housewife. Two children. P.E. Negative. Normal periods. Normally sexed. Mother had migraine headaches. Patient had no vomiting until her first pregnancy at the age of 18. Vomiting with both pregnancies, worse with second, at the age of 19. Headaches first started during second pregnancy and have recurred ever since. Headaches are preceded by scintillating scotoma.

Some hours before the attack of one-sided headache and vomiting, and often during and after attack she may teeter or reel as though drunk. With these symptoms often occurs a sensation of the neck extending out on one side for a foot or more; at other times her hip or flank balloons out before, with, or after the headache. Very occasionally she has an attack where she feels small—"about one foot high," just before, with, or during the headache. She says she knows the distortion isn't real because she looks in the mirror to see.

*Case 2.*—R.B. First seen at the age of 64, in 1928. Teacher. Unmarried. Consulted me regarding gastro-intestinal upset. Physical and laboratory examination were negative.

In 1936, when aged 72, she was medically treated by an ophthalmologist for glaucoma. After I listened to her story of blurring of vision with prisms and spots and scintillating forms which occurred usually before breakfast, followed by a mild, one-sided headache, I changed the diagnosis to migraine. On further questioning, the patient stated that she had had classic migraine headache with nausea and vomiting and similar eye symptoms from childhood until her forty-eighth year, when they ceased.

During the twenty years in which I have followed her case, she complains frequently of her left ear "ballooning out 6 inches or more" a few hours before the mild migraine headache appears. She states that in her mature years this symptom occurred more frequently before her headaches.

The feeling of ear distortion did not bother her because she "could see in the mirror that it did not exist, or feel it and it was not really there."

*Case 3.*—J. C., age 23. Single. Secretary. P.E. Negative except for recurrent enlargement of the blind spots. (Lippman) Mother's father had classic migraine; mother and only brother have migraine headaches.

Patient has normal periods and is normally sexed. Until the age of 17, she had occasional migraine headaches. At 18, when she went to work, severe one-sided headaches with nausea and vomiting occurred monthly. These attacks were extremely severe when she was exhausted. Headaches occurred usually on the right side of the head, but occasionally she had occipital headaches with vomiting. These latter were accompanied by cerebellar symptoms—staggering, imbalance on sitting or standing. Periods of complete well-being between headache attacks. Several times hospitalized with continuous daily headaches. Gynergen treatment had failed to relieve the headache, and had increased the nausea. Sensory hallucinations appeared before, during, and after headache attacks. Occasional attacks of headache were associated with undulating pain coming out the nose. "It is so definite I am sure the pain can be seen. The nose also pulsates. This lasts ten to twenty minutes."

At my request this patient wrote me a letter on December 6, 1942 in which she described in her own words her hallucinations:

"I am writing as accurately as possible the distortions I experienced during and after the migraine attacks. As you know, I've been treated by you for almost four years now, and within a few months after starting treatment I've had no distortions other than momentary ones.

"My attacks used to be quite frequent, and about every six months I would have a major attack that lasted for weeks and required hospitalization. It was at these times that I experienced the sensation that my head had grown to tremendous proportions and was so light that it floated up

to the ceiling, although I was sure it was still attached to my neck. I used to try to hold it down with my hands.

"This sensation would pass with the migraine but would leave me with a feeling that I was very tall. When walking down the street I would think I would be able to look down on the tops of others' heads, and it was very frightening and annoying not to *see* as I was *feeling*. The sensation was so real that when I would see myself in a window or full-length mirror, it was quite a shock to realize that I was still my normal height of under five feet. This happened quite often.

"The headaches used to frighten me terribly. I wanted to run from myself, and several times I thought that I was actually doing so. I was two things—one leaving the other behind. I still have some of this fear. When I start to get a headache I get a feeling of panic I can't control. I think it is more than just a fear of being sick or in pain, because it is an emotion that I feel at no other time. It is hard to describe. It's not the fear of real things—it's just something that descends on me and I can't think or talk or act. This sensation used to last for hours; now I experience it only momentarily at long intervals.

"These are the main things I remember. They were very real to me, and I suffered almost as much from them as from the pain."

Under adequate estrin treatment this patient's hallucinations disappeared, and her headaches could be averted for long periods of time.

*Case 4.*—E.S., age 38. Author and Secretary. Unmarried. P.E. Negative. Normal periods. Normally sexed. Mother and only sister both had classic migraine. Patient had severe one-sided headaches with nausea and vomiting and eye symptoms since five years of age. Periods of well-being between attacks. She wrote the following description of her hallucination:

"Often preceding and during the migraine attack I have a very peculiar feeling of being very close to the ground as I walk along. It is as though I were short and wide, as the reflection in one of those broadening mirrors one sees in carnivals, etc. Of course I know it isn't true."

Patient stated to me that if this attack occurs while she is returning from the grocery store which is at the bottom of the hill on which she lives, the top of the hill seems "ever so far away."

(Another patient who described this same feeling of being short and wide, referred to the sensation as her "Tweedle-Dum or Tweedle-Dee feeling.")

*Case 5.*—C.R., age 44. Manager of News Agency. Divorced. No children. Her mother and two sisters had classic migraine headaches. P.E. Negative. Normal periods. Normally sexed. Patient had one-sided headaches with nausea and vomiting, with periods of complete well-being between attacks. She wrote the following description:

"My headaches were weekly and very severe, accompanied by visual symptoms. . . I also suffered the illusion of being much taller than I actually am, in relation to ordinary objects. My head would seem far above my hands, far above table tops, etc. At other times, I seemed to be ('astrally,' I suppose you'd call it,) detached from and above my physical body, to be able to observe it and make mental notations concerning it, as a separate entity.

"I also entertained the illusion, occasionally, that my head was much larger than the rest of my body.

"All of these hallucinations were invariable in preceding by a day or two, or a few hours, the onset of a severe migraine headache.

"These various illusions have disappeared under treatment and only reappear after a sustained period of treatment neglect of several months, say, instead of weeks."

*Case 6.*—C.C., age 35. Housewife; originally employed as secretary. Married. Three pregnancies. One child living. Mother had "bilious headaches." P.E. Negative. Normal periods. Normally sexed. Patient had one-sided headaches with nausea and vomiting and eye symptoms with periods of well-being between attacks. Headaches began at age of six. During severe headache attacks she frequently experiences the following hallucination of body image:

"I get all tired out from pulling my head down from the ceiling. My head feels like a balloon; my neck stretches and my head goes to the ceiling. I've been pulling it down all night long."

The patient noted this particular attack because it was followed by a unique experience which she had never before felt, and which has not since occurred.

"On the second day of this attack, a bad one, my head fell into a deep hole under the head of the bed—it was a very deep hole. I knew it wasn't true, but I was really worried as to my sanity."

*Case 7.*—S.M., male; age 30. Ex-Army Captain. Research chemist. Unmarried. Mother and brother had classic migraine headaches. P.E. Negative. Normally sexed. Patient has had one-sided headaches with nausea or vomiting and eye disturbances with periods of well-being between attacks since early childhood. He came to me because of certain queer experiences which he had during the headache attacks. These "experiences" (hallucinations) began with the onset of individual headaches and ended when the headache ceased, for which he was always truly grateful.

"Today my body is as if someone had drawn a vertical line separating the two halves. The right half seems to be twice the size of the left half. I wonder how I am going to get my hat on when one side of my head is so much bigger than the other. After a few minutes of feeling large, the right half seems to shrink until it is smaller than the left. This process has been coming and going all day long. I know that it isn't really true and keep on working. I might say this is a strange feeling, for it makes one feel disappointed when he doesn't find himself as he feels.

"The hallucinations have disappeared under testosterone treatment but under severe prolonged strain (weeks or months) I get occasional headaches."

I would hesitate to report these hallucinations which I have recorded in my notes on migraine had not, more than 80 years ago a great and famous writer set them down in immortal fiction form. *Alice in Wonderland* contains a record of these and many other migraine hallucinations. Lewis Carroll (Charles Lutwidge Dodgson), who wrote *Alice*, was himself a sufferer from classic migraine headaches. He called them "bilious headaches," and in his diary describes them as being preceded by the eye disturbances known as "fortification spectra."

BIBLIOGRAPHY

- Lippman, Caro W.: Recurrent Trigeminal Neuralgia (Migrainous) Associated with Cyclic Scotomata: Betterment with Estrin. *JOURNAL OF NERVOUS AND MENTAL DISEASE*, 86: No. 6, 1937.
- Oppenheim, H.: *Lehrbuch der Nervenkrankheiten*. 7th Edition, 1923, p. 1865.

450 SUTTER ST.  
SAN FRANCISCO, CAL.