

## DISCUSSION OF HEADACHE\*

### HEADACHE OF GASTRO-INTESTINAL ORIGIN

C. L. HARTSOCK, M.D.

That most troublesome symptom, headache, so frequently is associated with disorders of the digestive system—especially nausea, vomiting, and constipation—that a cause and effect relationship certainly would appear to exist. When these two symptoms coexist in the same individual, usually the physician or possibly the more specialized gastro-enterologist is consulted in an effort to discover what is wrong with the digestive system, because the majority of patients believe that this disturbance of the digestive tract is the cause of the headache. While some headaches undoubtedly are due to faulty elimination habits, more often than not, the cause of these coexisting symptoms lies outside the gastro-intestinal tract. No matter whom such a patient consults, a very difficult diagnostic and therapeutic problem presents itself.

I have been accustomed to think of such problems as having three possible solutions. First, the disease may be primary in the central nervous system with secondary gastro-intestinal symptoms; second, the disease may be entirely outside either domain with the production of reflex symptoms in both; or third, the headache may be of gastro-intestinal origin, and this is placed last in my classification, because if a careful search is made, the cause of most headaches usually will be found outside the gastro-intestinal tract.

The specialist in any field, and this applies also to the gastro-enterologist, is prone to view all human ills from his narrow viewpoint, and unless he thinks of other possibilities first, often he will miss the true solution of a problem. Therefore, I never approach the problem of the origin of headache with the idea that it is secondary to some gastro-intestinal condition. An extremely careful examination of these patients is necessary to view the situation in the right perspective. Studies of the gastro-intestinal tract should be deferred until other examinations have been completed and other more specific causes ruled out. A minimum routine neurologic study should include a study of the fundus for evidence of increased intracranial pressure or vascular changes, a study of the pupillary reactions, the reflex actions, station and gait. These examinations often will give the leading clue that will suggest the need for further examinations as, for instance, of the visual fields, or of the spinal fluid, a roentgenogram of the skull or an encephalogram.

The level of the blood pressure, the cardiovascular findings, the number of blood cells, the results of the blood Wassermann test and of

\*Presented at a Wednesday Evening Staff Meeting.

## C. L. HARTSOCK

the examination of the urine may give clues as to the origin of the headache and digestive upsets. If the cause of headache is not determined early in the examination, a careful refraction of the eyes should be made, which should include also a measurement of the ocular muscle coordination. Examination of the eyes alone frequently will explain both the headaches and digestive symptoms.

A careful inquiry should be made in regard to manifestations of allergy in the patient and in his family, and if the slightest clue of the presence of allergy is found, it is advisable that a thorough study be made from this standpoint. Probably more coexisting headaches and gastro-intestinal symptoms will be found to be due to this cause than to any other single cause.

If the presence of brain tumors, infections of the central nervous system, cerebral arteriosclerosis, refractive and muscle errors of the eye, hypertension, uremia, cardiac decompensation, allergy, lead poisoning, hypothyroidism, and syphilis as causes of headache associated with gastro-intestinal symptoms are ruled out, then attention should be directed to the gastro-intestinal tract. The functional disturbances rather than the organic diseases of the gastro-intestinal tract are by far the more common causes of headache. Rarely is a headache cured by the removal of a diseased gallbladder or appendix or by an operation for a gynecological condition. Of course, no criticism is made of the performance of these operations for the relief of the definite pathological local conditions, but when the major symptom is headache and the gastro-intestinal disturbance is of less importance in the patient's mind, then one should be very careful about the prognosis in regard to the headache. One should also be doubly certain about the correctness of the diagnosis of abdominal disease before operation is performed because certain functional headaches, and especially migraine, mimic gastro-intestinal disease, and also draw undue attention to the pelvis because of their frequent occurrence at or near the time of the menses. Unless pelvic and abdominal operations are performed when the patient is near the climacteric, at which time migraine headaches naturally tend to disappear, the patient rarely is benefited except for a short period of time which is due to the rest after the operation.

Three types of headache are at least partly related to the gastro-intestinal tract, and in the presence of these, the gastro-intestinal tract should be studied thoroughly to aid in the treatment of the headache. Probably the most common type of headache is that seen in a very large group of patients who complain that a headache is associated with constipation. Some of these patients insist that if a bowel movement does not occur every 24 hours, a headache results. Such patients usually are slaves to the cathartic or enema habit. The cause of such head-

## HEADACHE OF GASTRO-INTESTINAL ORIGIN

aches is not very well understood, but usually it is ascribed to auto-intoxication which in itself means little or nothing. A more satisfactory explanation is that the patient is allergic to the end product of digestion or more likely to the bacterial flora of the intestinal tract, especially the colon bacillus. The absorption of the chemical products of putrefaction and fermentation must also be considered. It is possible that the headache is only a part of the same functional neurogenic disturbance that causes the constipation. The only pathology which is found in such cases is usually in the colon, which is irritable but may be of the spastic or atonic redundant type. The great majority of cases will gain relief by the simple bowel management of securing natural elimination without catharsis or enemata. Autogenous vaccines of colon bacillus should be used in the more obstinate cases if intradermal tests show that the patient is sensitive to this allergen. This type of headache occurs very commonly, it is the cause of much semi-invalidism, and it merits the careful attention of the gastro-enterologist.

Another type of headache in which the gastro-enterologist can be of great assistance occurs in those individuals who have a poor constitution, who are chronically tired, and who usually complain of a great deal of indigestion. The headache in these cases probably is not caused directly by the indigestion, but rather by fatigue. Very little relief, however, is obtained by treatment unless the patient's general condition is improved, and this rarely occurs unless the digestive symptoms are adequately treated. A high vitamin, high caloric diet with frequent small feedings, regulation of the bowels, adequate rest, mild and limited exercise, physiotherapy, sedatives and psychotherapy usually will correct the digestive disturbances, add weight and strength, and with the improved general condition, the headaches will disappear.

The third type of headache in which the gastro-enterologist should interest himself is migraine—the cause of which is unknown. It certainly is not due to disease of the gastro-intestinal tract, and it has been mentioned that abdominal operations do not cure it. Why then, should the gastro-enterologist study this condition so carefully? In the first place, the nausea and vomiting which in many cases accompany migraine are so much more distressing to the patients than the headache that they seek relief primarily from this condition. The patients are convinced that the primary trouble is in the gastro-intestinal tract, and because they vomit bile toward the end of the attack, they believe they have liver or gall bladder trouble, and consequently, they easily become the innocent victims of useless operations upon the gall bladder. One purpose of an adequate gastro-intestinal study is to convince the patient of the real nature of his trouble.

Certain headaches which simulate migraine very closely are due to partial obstruction high in the intestine, especially if associated with

duodenal stasis. This cause for headache can be found by adequate study, and the condition can be relieved by appropriate treatment. Such patients usually have an accompanying alkalosis.

Another reason for study is that the vomiting of migraine seems undoubtedly to be due to a functional reverse peristalsis of the upper intestinal tract. If no contraindications exist, such as an irritable colon, the occasional calomel and saline purge appear to lessen the frequency of such attacks. Duodenal lavage will give the same results. Undoubtedly the general treatment of the patient which includes dietary and bowel management, especially in patients who are high strung and who have irritable colons, gives good results.

The gastro-enterologist should also be interested in manifestation of food allergy which in some cases of migraine appears to be the sole etiological factor. Migraine appears to be a disease of the nervous system which is set off in explosive attacks by trigger points, and the complete general examination of the migraine sufferer should never be neglected, but for the above-mentioned reasons, the gastro-enterologist should take a very active interest in these patients.

Patients frequently ascribe their headache to such factors as nervousness, omission of food for more than the usual time, omission of the habitual morning cup of coffee, the ingestion of certain foods or combinations of foods, and numerous other idiosyncrasies, but with the possible exception of allergy and hypoglycemia, these headaches do not appear to be due to any detectable functional or organic disturbance of the gastro-intestinal tract, and they should be treated symptomatically and empirically.

In conclusion, the only headaches that appear to be due directly to pathology in the gastro-intestinal tract are those which are due to chronic constipation, either from absorption of toxic products or from sensitization to intestinal contents, and those due to alkalosis of high intestinal obstruction. Other headaches are caused by an outside factor with associated digestive symptoms, the relief of which will do much toward clearing up the headache.

Still other headaches associated with digestive symptoms are caused by some specific pathology outside the gastro-intestinal tract. This must be discovered and treated before either the headache or the digestive symptoms will be relieved.