HEADACHE OF NASAL ORIGIN

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The majority of patients in their quest for relief from headache consult a rhinologist at some stage of their illness. It has been found that a large proportion of these patients believe they have sinus trouble, and in many instances, they have been advised by even their own doctor that their headache is due to a sinus infection.

Two very definite statements may be made in regard to headache of nasal origin—first, the sinuses and upper respiratory tract are not a frequent cause, and second, headache is not one of the outstanding symptoms of sinus disease. Years ago, Gruenwald of Vienna taught that headache was present in one hundred per cent of the cases of acute sinus disease and in fifty per cent of the chronic cases. A recent analysis of a series of new cases seen in the nose and throat department of the Cleveland Clinic revealed that headache was a symptom in only twenty-seven of two hundred ninety-five consecutive cases of sinus infection, and of these, twenty-five were acute cases. Therefore, of two hundred and seventy cases of chronic sinusitis, pain, or headache was the chief complaint in only two cases—less than one per cent. This great change in statistics is due to a more thorough search for the cause of the headache and to better diagnoses.

By far the most common symptom of sinus disease is a post-nasal discharge. This was the chief symptom in eighty cases. Other symptoms in order of their frequency were nasal discharge, recurring head colds, nasal obstruction, ear complaints, cough with and without the production of sputum, asthma, and allergy. In this group of patients, twenty complained only of cough or bronchitis. Very often a patient comes to us after a diagnosis of frontal sinusitis has been made because of pain over the frontal region. Of twenty-five cases of acute maxillary sinusitis, pain was present over the affected cheek in nine instances and over the eye in four. In one case, the pain was referred over the opposite antrum which was quite clear on transillumination.

One of the most important causes for pain and headache of nasal origin is a high deviation of the nasal septum which crowds against the middle turbinated bone and creates pressure on certain nerves. Other causes are enlargement of a turbinate, such as is produced by a cystic degeneration of the middle turbinated bone, swelling of the polypoid sinus mucosa which causes pressure within the sinus, stasis following obstruction to drainage, ulceration of the sinus mucosa, and an active congestion of the cranial circulation which can be activated greatly by the use of alcohol or tobacco. In one case which we saw, a large cyst in an antrum caused pressure and pain, and its removal relieved the

headache. The usual clear, yellowish fluid which contained cholesterol crystals was found in this cyst.

Some of the complications of sinus disease produce headache. Meningitis causes a headache of distressing severity. In the presence of brain abcess, which is not a common complication, headache may be an early symptom which is associated with vomiting, choked discs, constipation, subnormal temperature, and a slow pulse. All these symptoms may not be present, but headache usually is found in conjunction with two or three of the other symptoms mentioned. In the presence of brain abcess of sinus origin, the headache usually occurs in the frontal region. It is dull and heavy, and sometimes it is excruciating in severity. Even when the abcess is in the frontal lobe, the headache may be occipital or parietal.

No great microscopic search is necessary to detect the sinus infection that may be responsible for headache. A carefully elicited history, the clinical findings, transillumination, roentgenograms, and the location of pus will all help, but of these, a good history is by far the most important.

Acute osteomyelitis of the frontal bone will produce severe pain and headache even though there is pus within the frontal sinus which a roentgenogram may not reveal within the first week; however, edema invariably will occur over the sinus. In cases of chronic sinusitis, a good roentgenographic study usually gives sufficient information for diagnosis without the injection of lipiodol. We find that the use of lipiodol in the sinus is of more importance in the demonstration of an entirely clear sinus than in the demonstration of the presence of disease.

Some of the more common factors that produce headache or pain which often are confused with sinus infection are eye strain, eye muscle error, migraine, fifth nerve neuralgia, syphilis, dental infection, an impacted third molar, and pain in the occipital region which runs down the back of the neck. The latter often is associated with high blood pressure, but frequently it is mistaken for infection in the sphenoid sinus. With the cooperation of a competent allergist, many headaches which have been attributed to hyperplastic ethmoiditis and sphenoiditis will be found to be due to allergy. With the aid of the allergist, we have also been able to relieve several patients from their "migraine" headaches which had been present for years. One patient has been completely free from headaches for sixteen months since wheat was eliminated from his diet.

Occasionally, we have a patient who believes that he has sinus or mastoid infection because of atypical pains in these regions. In many instances, examination reveals a low basal metabolic rate, secondary

anemia or a combination of both, and treatment directed toward these conditions usually relieves the headache.

Three cases which were seen recently will illustrate some of the points which have been mentioned.

Case 1: The patient was a woman who had pain and headache over the left brow which had been present for two weeks. Her physician felt that infection was present in the antrum, so it was punctured and washed out. According to the patient, no pus was found, but the pain persisted, and the puncture was repeated, still with no relief from pain. After the third puncture, the patient noticed that she had double vision, and when she looked into the mirror, she saw that her eye on the affected side would not turn. It was found that this patient had a paralysis of the sixth nerve. Had a little time been spent in taking this patient's history, the fact would have been elicited that she had had several miscarriages, and that serological study was indicated. The blood Wassermann test gave a four plus result and this revealed the cause for the headache.

Case 2: The second patient was a woman who had been advised two weeks previous to our examination to have an operation for the relief of headache over the right brow. No evidence of sinus infection could be found either by clinical examination or by x-ray. The patient was sent to the eye department and she reported that from the time drops were put in her eyes, and dark glasses had been worn, complete cessation of the headache occurred.

Case 3: The third patient was a woman who was examined first in 1929. Her complaint then was of pain over the right side of the face. The history notes made at that time stated that sinus infection was not the cause of the pain. She was not satisfied and went to another doctor who performed an operation on the right antrum. The pain persisted, and it was felt that it must be due to infected teeth. Therefore, four teeth were extracted, and if one can believe the patient's statement, each was a vital tooth. Still the pain persisted and the patient returned here again. Examination revealed that the pain was due to fifth nerve neuralgia and could be relieved only by measures directed toward that condition.