HEADACHE OF SYPHILITIC ORIGIN

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Although there is nothing pathognomonic about the headache which results from syphilis, this disease should be considered in the differential diagnosis of all cases in which persistent or recurring headache is a chief complaint. Since the Spirocheta pallida has a predilection for blood vessels and since many of the late manifestations of the disease occur in the central nervous system, it is not surprising that syphilis is an important cause of headache which may precede other symptoms and neurological signs by a long time.

No one would contend that headache which occurs in a syphilitic patient is necessarily related to his infection; however, the physician's responsibility to the patient makes it necessary that a thorough investigation for evidence of central nervous system syphilis be made. A careful neurologic examination and a spinal puncture are indicated. Equally important is a careful ophthalmological examination which includes examination of the visual fields for evidence of optic neuritis.

Most patients with early secondary syphilis complain of headache. It may be very slight, dull or paroxysmal, or in some instances, the pain may be severe and associated with slight stiffness of the neck. The associated cutaneous and mucous membrane lesions and positive serologic findings will simplify the diagnosis.

In late syphilis, headache results either from the involvement of the vessels of the brain or from an inflammatory reaction of the meninges, particularly the dura mater. Such cases are classified as vascular or meningovascular neurosyphilis, and the latter is the most common type. Headache may occur in the presence of parenchymatous neurosyphilis, such as paresis, but it is seldom a major complaint. In practically all cases of late neurosyphilis, signs and symptoms referable to syphilitic meningitis eventually appear. This is true especially in those cases which receive little or no treatment. The severity of these manifestations depends upon the location and the intensity of the inflammatory reaction.

The headache which accompanies vascular neurosyphilis usually is diffuse, dull and stupefying in character; however, occasionally it is localized. The pain is seldom constant, and it may disappear for weeks at a time and then return without any apparent cause. It may be the only symptom in some cases, and in others, attacks of dizziness, insomnia and personality changes frequently are associated symptoms.

The headache produced by syphilitic basal meningitis is located deep back of the eyes, and often it is very severe. The patient complains of pain when pressure or percussion is applied over the brow. Optic

neuritis usually is present, and cranial palsies frequently occur. Involvement of the convexity of the brain produces a diffuse headache associated with localized areas of tenderness on the scalp. The patient complains of a pressing sensation on the vertex of the scalp.

Gumma of the brain is a rare condition in which the headache is the same as that which results from intracranial pressure produced by neoplasms. Examination of the spinal fluid in gumma of the brain and in vascular types of neurosyphilis frequently gives normal findings while in the meningovascular type, one usually finds varying degrees of pleocytosis, increased globulin content, a positive gold chloride reaction, and a positive Wassermann reaction. There are, however, cases with unmistakable signs and symptoms of syphilitic basal meningitis in which the spinal fluid findings are normal. One of the most constant findings is an increase in the total protein content of the fluid. Likewise, too much dependence should not be placed on negative blood Wassermann reactions because it is not uncommon to find normal serum in late syphilis. As in all laboratory procedures, the physician must correlate the serologic findings with the symptomatology and the clinical findings in each case.

Neurorecurrence is an important and often unrecognized type of neurosyphilis in which headache is one of the common symptoms. It is very important that this condition be recognized early, because prompt institution of intensive arsphenamine therapy will influence the prognosis in such a case. Neurorecurrence is a relapse of an inadequately treated infection which usually occurs early in the course of the disease, and in cases which have received only a few injections of some arsenical preparation; however, it may develop during the time when the patient is receiving fairly intensive treatment. The onset of symptoms may be sudden, but frequently it is gradual. The patient may complain of intense headache, associated with nausea and vomiting, and cranial nerve palsies may develop. Examination of the spinal fluid shows a marked pleocytosis. In all cases of early syphilis in which headache develops during or after inadequate treatment, a spinal puncture should be performed. If evidence of meningitis is present, the treatment should be prolonged and intensified with arsphenamine, supported by bismuth and mercury. The response to treatment should be checked by repeated examinations of the spinal fluid, and if the fluid is abnormal after continuous and intensive therapy for 18 months or two years, malarial therapy should be administered.

Headache is a common symptom of hemorrhagic encephalitis—a complication which rarely follows arsphenamine therapy but which must be differentiated from neurorecurrence. In hemorrhagic encephalitis, the headache is severe, the patient is very nervous, excitable and hyperkinetic and these symptoms usually appear early in the

course of arsphenamine therapy. The cell count of the spinal fluid is normal or only slightly increased in the presence of encephalitis, while in neurorecurrence there may be a marked pleocytosis.

Syphilis is a common disease and neurosyphilis develops eventually in a large percentage of the infected individuals. Because of this, the possibility of syphilis as an etiological factor in the production of headache should be kept in mind.