

enemies to soundness of heart and steadiness of heart work. To those who are subject to acute palpitation, tobacco is so mischievous that it is hopeless to attempt to treat them until the habit is abandoned. On this point there must be no mistake.

3. *Medical Treatment.*—During an attack of acute palpitation, medical treatment of a direct kind can only be palliative. It is a common practice to place the patient in the perfectly recumbent position, but as this position leads, frequently, to breathlessness and much discomfort, I never enforce it unduly. The sufferers usually find out the best position for themselves, and standing up, and even gentle walking backward and forward commonly appear to bring relief, as if the general muscular action equalized the local over-action.

For the actual palpitation, digitalis is the only remedy I have found of any positive service, and it combines well with remedies which have a tendency to promote quickly the cutaneous and renal excretions. I usually prescribe the tincture of digitalis in five or ten minim doses, with half a fluid drachm of nitric ether, and two fluid drachms of the *liquor ammoniæ acetatis*. In instances where there has been prolonged sleeplessness, with palpitation, I have combined morphia, in full doses, with digitalis, with good effect, adding the narcotic dose to the formula just named.

In general treatment I am accustomed to follow, whether the heart be organically sound or unsound, the same methods as those prescribed in my previous essay on intermittency. The organic bromides of iron, quinine, and morphia, and the mixture of iron carbonate, ammonia, and morphia (*Asclepiad*, Vol. 1, p. 204) are excellent remedies. The only difference in treatment, in fact, relates to the use of alcohol, which, valuable in some cases of intermittency, is less compatible in cases of palpitation.

4. *Treatment of Epigastric Palpitation.*—The rules already ordered for the management of cardiac apply equally to the epigastric palpitation. There is, however, in cases of epigastric palpitation more frequent necessity to meet dyspeptic symptoms, including flatulency and consumption, by alternative and mild aperient correctives.—*Asclepiad*.

SICK HEADACHE.

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There are few diseases which are the source of so much suffering as that which is the subject of this paper. Beginning usually at an early period of life, most frequently about the time of puberty, it returns as an unwelcome visitor for the greater part of the remaining life. Often it recurs with such frequency and severity as to make existence a terrible burden.

Like most diseases which, in themselves, never lead to a fatal issue, its pathology is very obscure.

Hughlings Jackson considers it to be of the nature of epilepsy, and to be caused, as he believes to be true of the latter disease, by a discharging lesion in the brain, in this case, in the sensory area. It must be acknowledged there is much in the manifestations of the disease, the manner of recurrence, and the influences which control it, which lends weight to this view. Of late years the most prevalent view of the nature of this disease is that it is caused by changes in the sympathetic nervous system, and that the paroxysms are brought on by a spastic or paralytic condition of the cerebral blood-vessels. When there is a spastic condition the paroxysm is termed spastic, or sympathetic-tonic; and as further indications of irritation of the cervical sympathetic, it is found that on the affected side the face and ear are paler and colder than on the other side, the eye is prominent, the pupil dilated, and the salivary secretion is very viscid and much increased in quantity. The paroxysm, with parietic condition of the vessels, is termed angio-paralytic, or neuro-paralytic. The paresis on the part of the cervical sympathetic is further indicated by heat and redness of the face and ear, suffusion of the eye, and contraction of the pupil on the affected side.

I have had occasion to examine a large number of cases during the height of the paroxysm, and only rarely, though the headache was distinctly unilateral, have I found decided manifestations of irritation or paresis of the cervical sympathetic. Therefore, I cannot but doubt the correctness of this explanation in many cases, though it is still possible that the pain may be due to varying conditions of the circulation within the skull, while there are no external manifestations of changes in the sympathetic nervous system.

Practically the important consideration is that of treatment. What can we do to ameliorate or to cure the disease? We must consider separately treatment for the relief of a paroxysm and that for the improvement or cure of the systemic condition which causes the paroxysms.

In case of a severe paroxysm all sources of irritation should be removed. The patient should be at rest in a darkened, quiet room; if anæmic, should lie down; if hyperæmic, maintain a sitting position. Firm compression of the head or the application of cold sometimes affords considerable relief. In the spastic forms of migraine, with contracted cerebral vessels, the inhalation of nitrite of amyl, or the internal administration of nitroglycerine, or other remedies which produce dilatation of the blood-vessels, will cause more or less complete relief. In the paralytic forms ergot often acts very admirably. Various other remedies are used whose indications can not be so distinctly given. Quinine, in from five to fifteen grain doses, will often arrest an attack. Many old sufferers with migraine, who have tried almost everything, find greater benefit from this than any other drug. Coffee, or its active ingredients, caffeine and guarana, often relieve lighter paroxysms.