

variety which remains to be noticed, may be regarded as bearing exactly the same relation to writing that aphemia does to speech; in other words, it is amnesia of the co-ordinated movements necessary to writing. It is in every respect comparable to aphemia; indeed, the two often co-exist. It frequently passes unnoticed, owing to the co-existence of right hemiplegia.

### ON THE TREATMENT OF MIGRAINE.

To me migraine seems to be one of the many sudden discharges of energy which takes place at more or less regular intervals, and in obedience to more or less inadequate irritations, which discharges are due to exhaustion or defect of volume in superior inhibitory centres. Migraine is a malady of neurotic persons, and a neurotic person is one who inherits relative incapacity of one or many nerve centers. We are unable to say which center or system of centres is of defective volume in migraine, but seeing that signs of exhaustion are found in the head, speech organs, special senses, and if in the limbs generally on one side only, we may presume that the defective control is somewhat in one cerebral hemisphere. Most sufferers from migraine suffer on one side only, some on either side, but there are usually a "favorite side." In either the attacks are bilateral, vertical or occipital, or vary in position, often beginning in the occiput, passing over the vertex and finally settling in one temple and eye-ball. In one of my cases the attack begins just behind the left mastoid process in a limited spot like clavus; this is a hereditary case, and vomiting occurs. The treatment of migraine is not so blank a page as many writers would say that it is. Too often we are impotent to relieve a patient in his misery, but we may do much to postpone or diminish the seizures. In the epileptic fit we may do little; our hope lies in prevention. Still, even in the attack of migraine, we are not without resources. I shall not enlarge on the usual household expedients—on the quiet room, the easy posture, the feet in hot mustard and water, and so forth; but of drugs proper, two have seemed to me to be useful. In some cases guarana is as signally successful as it is helpless in others. In those it has often restored patients of mine to the duties and pleasure of life who were almost crushed by recurrent migraine. It answers best in the cases which begin with some slight warning in the early day. Guarana thus given in two or three doses at short intervals often cuts short an attack or wards it off altogether. Pure caffeine ought theoretically to have the same effect, but I have not carefully compared the two agents. The other drug is croton chloral, used in like repeated doses up to about 20 grains in all. In some cases migraine may begin at any hour and may begin suddenly; in others it continues 30, 40 or 50 hours, the patient meanwhile lying in a semi-conscious state of helpless misery. For such states we have no help. Ergot, nitro-glycerine,

nitrite of amyl have not helped me much, but these drugs have able advocates nevertheless. Indeed as Burton says, "the manner of living is more to the purpose than whatsoever can be drawn from the most precious boxes of the apothecary." Looking upon migraine as I do, as a defect of development, and seeing it, as we all see it, as a disorder taking its origin in childhood, we must base our hopes of cure upon a healthful life, a healthful growth, and a healthful education. The principles of such a method of rearing neurotic children, and the terrible consequences of neglecting these measures, have been set forth with singular clearness and wisdom by Anstie, and I have not a word to add to his teaching.

Dr. Eustace Smith, an able and practical physician, finds that a combination of ergot and strychnia is of great value in addition to means of a more general kind. Dr. Ross also relies greatly upon ergot.

When we have to deal with fixed morbid habits of adult life, we can no longer hope to eradicate the tendency to migraine by promoting equable encephalic development; we have now to do with a finished machine, but yet with a machine not incapable of modification.

The great rule for the migrainous is an even life—a course of life which makes no rapid and no excessive demand upon nervous expenditure, and which favors steadiness of nervous action by an almost slavish adherence to routine. If an unwonted indulgence at table will cause a migraine, so will an unwonted abstinence from food. Sleep, work, food, must, both in quality, quantity and time, be regulated with such care that the nervous functions may be impressed with a like uniformity. In woman the catamenial period disturbs this serenity of conditions. Migraine has no essential connection with uterine changes, for a woman who has "catamenial migraine," as it is sometimes called, may inherit it from her father and transmit it to her son; indeed, such a transfer is in my experience very common. The catamenia only set up the migraine as any other oscillation may set it up—as a dyspepsia may do it, or an annoyance or an unusual effort. The migraine, indeed, bears no definite relation to the flow: in some patients it precedes the flow, in some it accompanies, and in some it follows it. Menorrhagia and leucorrhœa are, of course, common abettors of migraine, but by virtue only of their general tendency to bring about anæmia and exhaustion. When in respect of healthy home and climate, and a regular mode of life, we have put our patient under favorable circumstances, we must search in no routine spirit for any defect of nutrition or disorder of function which may exist. If we are satisfied that all these matters are cleared up and set in order, we may turn to specific remedies. In my hands a combination of bromides with quinine has, on the whole, and in a great number of cases, answered best. After this comes cannibis indica and ergot, and after these chloride of ammonium. Arsenic,