

In regard to the treatment of tubercle of the brain little need be said at this time. For tubercular meningitis, absolute rest, the promotion of sleep, the application of ice to the head, the internal use of mercurials or iodides, and careful attention to every symptom as it arises, are the principal means at our disposal.

In cases of tubercular tumor the question of surgical interference does not often present itself, since the lesion, as we have seen, is most commonly in the base of the brain. The method of treatment most likely to cause an arrest of the morbid process is the use of tonic remedies along with cod-liver oil and iodide of iron, together with careful attention to every hygienic means.

VERTIGO: ITS TYPES AND TREATMENT.

CLINICAL LECTURE DELIVERED AT THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.

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THESE three patients are suffering from vertigo. The first one is seventy years of age, and was well up to a short time ago, when she suffered for the first time from vertigo. The vertigo was of the form we call "objective," or that form in which things around the patient seem to be moving. Shortly afterwards she developed a tremor of her hands and some weakness of the extremities. The arms are extensively involved in this, and there is slight tremor of the head, and slight nystagmus. After suffering from this tremor for two or three months, the vertigo became troublesome whenever she moved around much. It was accompanied by a peculiar humming noise, not in the ears, but in the *head*, a symptom which we call "tinnitus cerebri." She also complains of considerable disturbance of the stomach.

The second patient is forty-seven years of age, is married, and has had several children. She enjoyed good health up to last November, when she had an attack of acute Bright's disease, lasting two months. After recovering from this, she continued to be pretty well until two or three weeks ago, when she began to suffer from sudden and paroxysmal attacks of vertigo. The stomach is not much disturbed, she is not particularly anæmic, and she has none of the ordinary symptoms of uræmia. It is difficult to make some patients understand just what you mean by dizziness. She describes her condition as a "sudden coldness in the head, and then a sudden heat."

The third patient is thirty-three years old, is married, and has had several children. She is of a nervous temperament. She was well up to a year and a half ago, when she had a miscarriage, since which time

she has been very nervous, irritable, suffers from insomnia, has feelings of pressure on the top of the head, numbness of the hands, pain in the neck, creeping sensations about the body, and all the classical symptoms of neurasthenia. In addition to these symptoms, she tells us now that she suffers from dizziness, from objective vertigo.

Vertigo is, of course, a very common symptom, and one which, like headache, is very difficult to classify, but for practical purposes we can divide these cases upon an etiological basis as follows:

(1) There is a vertigo dependent upon hæmic and cardiac causes, the *vascular* form. This form of vertigo is due sometimes to simple anæmia, and sometimes to a poison in the blood, and hence it is often spoken of as "anæmic" or "toxic."

(2) There is a large class of vertigoes which we call "auditory," because they are due to disturbance of the space-sense branch of the eighth nerve. The auditory nerve is really composed of two nerves,—one the nerve of hearing, which starts from the cochlea and goes to the medulla, then to the posterior tubercles and to the first and second convolutions of the temporo-sphenoidal lobe, and the other a nerve from the semicircular canals, which passes up into the middle lobe of the cerebellum and then passes forward to the cerebrum. This nerve, when injured, causes disturbance of the space-sense, producing vertigo. The most typical form of auditory vertigo is what is called Ménière's vertigo, and is generally due to organic disease of the internal ear, often of syphilitic origin. There are many milder forms of aural disease, anæmias or hyperæmias of that organ, which cause vertigo, so that Gowers considers that one-half of the vertigoes are of auditory origin.

(3) There is a class of vertigoes which we call "ocular," because they arise from disturbance in refraction, or in the muscles of the eye. These vertigoes are often found in cases of astigmatism and of muscular asthenopia, but I consider that a very small proportion are of this origin.

(4) There is a large class due to reflex irritation, as from the stomach, liver, intestines, and the pelvic viscera. These are perhaps the more common forms met with.

(5) There is a vertigo of purely neurotic origin,—*e.g.*, the epileptic and neurasthenic vertigoes. Many persons after studying very hard will begin to have dizziness in the morning, which is promptly relieved by cessation of the work. It is a form of neurasthenic vertigo.

Now, gentlemen, you have heard the histories of these three patients with vertigo, and I shall be pleased to know how you would classify them. Of course it is quite common to find that you cannot

place a case entirely in one category. It is suggested that this first patient has a vertigo due to old age; and it is true that there is a vertigo from obliterating endarteritis which comes on somewhat in this way. The vertigoes which are preliminary to acute softening or hemorrhage are usually temporary, coming on several times in a day, but only for a short time. I think if you had this patient in your office you would not hesitate to say that her vertigo was due to "biliousness" or something of that kind, and there seems to be no doubt that it is of toxic or reflex origin, and due largely to the condition of her stomach. She has hard arteries and a poorly-nourished brain, and hence, if you add to this a dyspeptic condition, there is abundant cause for her vertigo. She has also a gradually developing tremor, chiefly of the hands. The tremor is almost constantly present, is increased upon motion, and is accompanied by sweating and a feeling of fever and weakness. There are three common conditions in which there is tremor,—*viz.*, paralysis agitans, senility, and multiple sclerosis. The tremor in the last-named condition is increased by movement, and is due to small spots of connective tissue in the brain and cord. This patient's tremor either is of toxic origin or is due to paralysis agitans or to senility, for she is too old for multiple sclerosis. In my opinion, she is developing a form of paralysis agitans, and in the course of a few months she will probably show the typical symptoms of shaking palsy.

I shall give her a calomel purge, and follow this with fifteen drops of nitro-muriatic acid three times a day. To secure her *prompt* relief, it would be advisable to give her a powder consisting of twenty grains of bromide of sodium with a little pepsin and ginger, for you know that bromide of sodium is the best symptomatic remedy for vertigo.

Our second patient with vertigo gives us only a history of an attack of Bright's disease. One week ago her pulse was weak and tense, and yet she does not give the ordinary symptoms of uræmia. Her vertigo was produced by a mild uræmic poisoning, and it belongs to the class of vascular vertigoes. The proof of this is to be found in the fact that on giving her one one-hundredth of a grain of nitro-glycerin three times a day the vertigo was promptly controlled, and two days after stopping its use the vertigo returned. I shall again put her on nitro-glycerin, for her pulse is again hard, and I shall also give her iron and spirit of chloroform as a general tonic.

In regard to the third patient, who was neurasthenic, I may say that she is a type very frequently met with in general practice. The vertigoes which occur in women of this class are simply the expression

of the excessive nervous irritability of the subject, combined with the ordinary dyspeptic symptoms associated with this condition. These vertiges belong primarily to the neurotic group; but dyspepsia, constipation, anæmia, and various reflex causes, such as ocular and auditory troubles, all help to produce it. The treatment is, of course, the treatment of neurasthenia, and this is a subject into which I have not time now to enter. I shall begin her treatment by giving one drachm of fluid extract of valerian and twenty grains of bromide of sodium, three times a day, until the nervous irritability is quieted, and then I shall prescribe hydro-therapy, electricity, tonics, and proper diet.

DELIRIUM TREMENS AND OTHER FORMS OF SURGICAL DELIRIUM.

CLINICAL LECTURE DELIVERED AT ST. GEORGE'S HOSPITAL.

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GENTLEMEN,—There has lately been an opportunity of observing in the wards of the hospital several different kinds of delirium occurring in connection with surgical cases: so that it may be useful to devote a clinical lecture to the consideration of this subject.

In the first place we may notice two cases of delirium tremens, both furnishing illustrations of some characteristic points concerning this disease.

Both of these were men; and it is remarkable with regard to delirium tremens that it is very seldom seen in women. Yet the causes which are usually, and I believe rightly, considered conducive to this disease in men are largely operative also upon women. I am afraid there can be no doubt that there is a good deal of drinking among women, and that their intemperance is often combined with mental anxiety, physical fatigue, lack of rest, and insufficient or inappropriate food. We also see a good many cases of injury among intemperate women. Yet in spite of all this, and of the greater mobility of their nervous system, we rarely meet with a case of delirium tremens among them. I suppose the fact is that though many women are intemperate, yet the actual amount of stimulant taken by them is generally less than in the case of men. Among the poorer classes the money usually has to filter through the pocket of the man before it reaches the wife, by which time there is mostly but little margin for her to spend on drink; and probably the needs of the children act through her maternal instinct as a material restraint on much expenditure in that direction: so that she has to satisfy her craving with less than would content the man.

These men were both strong men in the prime of life,—one a stable-