

As regards my own case, I will only further remark on the combination which it exhibits between paralysis and spasmodic action—a combination certainly in favour of an alliance between the two conditions of nerve-tissue in which they respectively originate. It will be observed, on the one hand, that the conducting power of motion and sensation had “run down” in the fibres of the medulla oblongata; whilst, on the other hand, the spasm of the glottis, the deranged deglutition, the fits of aphonia, and the drawing of the arms, indicated exalted reflex excitability in the nerves supplying the parts in question.

S. B., aged 56, was sent to me by my friend Mr. Manley of West Bromwich. He has been subject for fifteen years to attacks of the following character, each one lasting three weeks, and generally occurring about Christmas. The intervening periods have been passed in perfect health. His present attack has been much more severe than former ones. Never before has the weakness of his legs “made him bedfast”.

The most prominent feature of each illness has been frequently recurring paroxysms of a strangling feeling in his throat, with great distress in breathing. He is described as flushing in the face, throwing out his arms, and fighting for his breath in the greatest anxiety. These paroxysms are often preceded by pain in the back of the head and in the nape. Laryngeal spasm is often brought on by drinking liquids; and he describes a sense of stiffness at the root of the tongue in swallowing, and his jaw “gets set” when he begins to eat. He has, besides, sudden fits of complete aphonia, often stopping him in the midst of a sentence. Intense thirst has always accompanied each illness, and he “makes a sight of water”. Whilst in the hospital, his thirst was excessive; he drank fluids very copiously, and at one time passed 124 ounces of urine, specific gravity 1007. His urine was quite free from albumen and sugar. The interior of the throat was injected; the palate was otherwise healthy.

Another symptom always present is very considerable impairment of vision (he could just read No. 18 Jäger). This was proved to depend solely on defective accommodation by my friend Mr. W. A. Bracey, who examined him with the ophthalmoscope, and tested him with a glass. His pupils were of normal size and contractility. In each illness, his lower extremities have been much enfeebled, and he has had numbness and formication in his feet. His hands are apt to be contracted and benumbed, and his arms to ache, as if he had been doing unaccustomed work.

On the present occasion, however, the muscular weakness amounted to paralysis; he was quite unable to walk, and his grasp was very feeble. There was, besides, considerable anæsthesia to contact of the entire body and limbs; but he was alive to the sensation of heat. The other nervous functions were healthily performed (smell and taste were not tested). His mental faculties have always been unaffected. On the present occasion, however, there was a little dullness.

He has “greatly fallen away this time”, far more than usual; and he drew my attention to a curious circumstance, that all the finger-nails are falling off, and are being replaced by new ones.

All the organs of his body were healthy. He could not assign any cause for his illness. He has been temperate and regular in habits, and has never had venereal disease.

His present illness was of unusual duration—nearly two months; but his recovery, as on former occasions, was complete in every particular.

## Original Communications.

### ON THE TREATMENT OF STRABISMUS WITHOUT OPERATION.

By C. HOLTHOUSE, Esq., Surgeon to the Westminster Hospital, and to the Surrey Ophthalmic Hospital, etc.

[Continued from p. 463 of vol. i for 1866.]

BEFORE I pass to the consideration of the non-paralytic varieties of strabismus, a few words may be necessary on the local treatment of the paralytic forms. In all the examples hitherto narrated the treatment was general; but, in two of the cases, there was combined with this the local application of galvanism to the peripheral branches of the 5th nerve in the neighbourhood of the affected eye. There are two other local measures which call for some remark, viz., the exclusion of the affected eye from vision, and the employment of prismatic glasses. As regards the first, the patient usually finds out before long that by closing his bad eye he can avoid the confusion of vision and giddiness that accompany these paralyses; he resorts therefore instinctively to this expedient, and I think that in this matter the surgeon cannot do better than be guided by the practice of his patient; hence I have been in the habit of systematically binding up the diseased eye, not only to avoid diplopia, but to counteract the tendency to a secondary strabismus in the sound eye. This is more especially necessary, if the vision of the paralysed eye happen to be better than that of the other, and if the amount of the distortion be not great; under these circumstances the patient still employs, by preference, the paralysed but better seeing eye, and this entails such an effort to keep it straight, that the unparalysed eye becomes affected with a squint in the same direction as its fellow, but in a much higher degree (as illustrated and explained at p. 358), and this, if long persisted in, leads to permanent strabismus, even should the paralysis be recovered from. It is by no means necessary that the paralysed eye should be constantly bound up; about four hours a day I believe to be quite sufficient to counteract the tendency to structural changes in the muscle of the unaffected eye, and the practice has besides this further advantage, that the worse seeing eye, being brought more into use, not unfrequently undergoes considerable improvement in its vision. It is not essential that occlusion should be practised for four hours continuously; on the contrary, it is equally efficacious if divided into periods of one hour at a time, and for his own safety and comfort, the patient should always cover the eye when he walks out alone.

The employment of prisms in the treatment of these paralyses is a comparatively modern invention, the object aimed at being to utilise the diplopia and render it subservient to the cure of the disease. This is effected, or attempted to be effected, by the double images being brought so near together by means of a prism, that a slight effort on the part of the weakened muscle causes them to coalesce. Theoretically, this is no doubt a very elegant and scientific method of proceeding; but unfortunately there are so many conditions required to render it available, that its practical application becomes extremely limited, and its utility proportionately diminished. For instance, among these conditions must be reckoned in the first place the degree of strabismus, which must be very slight, the deviation not exceeding a line or a line

and a half linear measurement; then again, the patient is required to possess the power of uniting the double images by the isolated action of the weakened muscle; and lastly, he ought to possess a considerable amount of intelligence and perseverance, or the intention of these prisms will not be complied with. Let us examine this question a little more closely. It is assumed that when, by the action of a prism, say of 14, the double images can be made to coalesce, then, by supplying the patient with one of 10 or 12, the images will be brought so near together that the patient will, either by a voluntary or reflex action of the weakened muscle, unite them. Now, if such coalescence were really brought about by a reflex act, the advantage of this over other plans of treatment would be obvious; but from careful trials I have satisfied myself that in many cases the supposed reflex contraction is altogether illusory, and that if contraction does take place it is voluntary, accompanied therefore by a still greater contraction of its associated muscle, and a further separation of the double images. What really happens when a patient is supplied with such a prism is not a movement of the eye but of the head, as any one may readily convince himself of by first fixing the head before he makes trial of the prism. This treatment, therefore, requires, as I said before, many conditions to ensure success; the use and intention of the prism should be fairly explained to the patient, and he must be made perfectly to understand what he has to guard against, or he will certainly deceive himself, by substituting an easy and almost imperceptible movement of the head for an irksome one of the eye. For the reasons above given, then, I rarely employ prisms, except with the object of procuring complete fusion of the images, and thus counteracting the tendency to secondary strabismus in the unparalysed eye.

To pass now to the consideration of the *non-paralytic* or *muscular strabismus*, commonly called concomitant squint. This differs from the paralytic variety in almost every particular; it differs from it in its immediate and remote causes; in its phenomena, objective and subjective; in its course and tendency; and it differs from it, lastly, in the treatment required. But though the differences are thus marked in what may be termed the fully developed forms of the two affections, there is a small group of cases occasionally met with in which the two forms appear to be blended—a result due partly to imperfect recovery from a paralysis, and partly to secondary changes which it has induced in certain of the muscles during its continuance. But to proceed to the differences of the fully developed cases. First, there is the immediate cause of the distortion—muscular shortening—active, frequently intermittent and spasmodic at the commencement, and terminating in hypertrophy of the shortened muscle in the one form; altogether passive and continuous, and terminating not unfrequently in atrophy of the shortened muscle in the other. These muscular changes are brought about most frequently by some optical defect, as hypermetropia, in the first case; by some intra-cranial or intra-orbital mischief in the second. Then, as regards the phenomena, without going into all the differences, it may suffice to remark that the movements of the affected eye in concomitant strabismus are free in every direction and generally excessive in one, whereas in the paralytic form they are diminished, or entirely wanting, on the side opposed to the squint. Not less striking are the differences in the subjective phenomena. The vision of the squinting eye in ordinary strabismus is nearly always more or less defective; it takes no cognisance of external objects, consequently there is no diplopia, and the pa-

tient is in fact monocular. In paralytic strabismus all these conditions are reversed. The course and tendency of ordinary strabismus is generally to get worse; first, perhaps slight and intermittent, and affecting only one eye; then increasing in frequency and degree, and becoming continuous; then implicating the other eye; and with this gradual increase of the deformity, there is not unfrequently a corresponding deterioration of vision. In the paralytic variety, on the contrary, a considerable proportion of the cases either completely or partially recover, the vision of the affected eye does not undergo deterioration, nor does the patient become monocular. Lastly, the treatment of the two forms is altogether dissimilar.

In my next communication, I shall proceed to offer some observations on the treatment of concomitant squint.

[To be continued.]

## Transactions of Branches.

### SOUTH-EASTERN BRANCH.

#### PRESIDENT'S ADDRESS.

By CHARLES TRUSTAM, Esq., Senior Surgeon of the Tunbridge Wells Infirmary.

[Delivered at Tunbridge Wells, June 14th, 1866.]

GENTLEMEN,—In bidding you welcome, in the name of my professional brethren, to this town, I must first thank you for the honour you have conferred upon me by placing me in my present position; for, when I consider the little attention I have been able to give to the interests of our Association, I can but feel that there are many members of the Branch in this neighbourhood who have far greater claims for the post. And, if I were to describe my feelings on hearing the fact of election, I should say they were much of that character which Pope uses when he speaks of flies in amber—

"The things themselves are neither rich nor rare;  
We wonder how the devil they got there."

But here I am, and must redeem the mistake you made in the best way I can.

I shall, in the first place, take the liberty of troubling you with a short history of the rise and progress of this now large and fashionable watering place; and I am sure I cannot better engage your interest or bespeak your indulgence than by telling you that it was here that the much esteemed and venerable founder of our Branch, Mr. Martin, in the year 1798, broke his first lance against disease and death; the recollection of which, though sixty-eight summers have since marked their course on his well known brow, is still fresh in his memory; he still claims to be considered as the oldest practitioner of this place. Some of you will remember that it is now nearly twenty years ago since he, as our Secretary, read, in this place, and on this spot, one of the ablest reports (and many an able one we have had) of our proceedings, that ever came from his pen. That he is not able, from increasing infirmities, to be present at our meeting this day, is a matter which I am sure we all regret.

The town of Tunbridge Wells, of which I am about to attempt a short description, is situated in three parishes and two counties. Before you entered this room, which, as you see, is in the centre of this building, you were in the parish of Speldhurst, and in the county of Kent. When you had passed its threshold you were in the parish of Frant, and