Two cases of congenital and infantile cerebral palsy / by E. Mansel Sympson.

With Kind regards from the Author

[Reprinted for the Author from the BRITISH MEDICAL JOURNAL, Feb. 8, 1890.]

TWO CASES OF CONGENITAL AND INFANTILE CEREBRAL PALSY.[1]

BY E. MANSEL SYMPSON, M.B.CANTAB.,
Lincoln.

THE patient, H. E., aged 19, was the third child of his mother, who states that she had a long and hard labour with him, but that no instruments were used. Ever since birth he has been palsied on his right side, the right leg getting fairly strong and useful, while the right arm has always been a good deal weaker than the left. About three years ago he had a sharp attack of rheumatic fever, with probably some dilatation of the heart, for there was then a mitral murmur, which I am glad to say has now vanished. For several years he has been subject to sick headaches, scarcely worthy, perhaps, to be dignified with the title of migraine, though the attacks were paroxysmal, of very severe headache, with vomiting, cold extremities, but with no affection of sight. Also about three years ago, while bathing directly after breakfast, he was suddenly seized with a fit of struggling, vomited freely, and was unconscious for some time. The next fit took place eighteen months afterwards, the last about four months ago; there have been about five fits altogether. There is no aura or warning; he is unconscious for from three to five minutes, in apparently clonic general spasms, eyes turned upwards and rolling, face purple, no involuntary evacuations, petechiæ on face, and on several occasions he has injured himself severely.

Present Condition.—The head is obviously larger on the right side; from the vertex to the top of the left ear is more than half an inch smaller than from the vertex to the right ear; eye movements normal; heart slightly hypertrophied.

Right forearm an inch and a quarter smaller in circumference and half an inch shorter than the left. Its muscles react well to faradism. The chief wasting or want of development seem to have taken place in those arising from the inner condyle of the humerus. The interossei are very poor. The forearm is generally somewhat flexed on the elbow, the hand flexed on the wrist, the fingers overextended; supinator, biceps, and triceps reflexes are easily obtainable; the hand and arm are colder than on the left side, while the skin of the hand is markedly smooth and almost glossy; sensation seems unimpaired; grasp, though considerably weaker than that of the left hand, is fair, but he can do nothing demanding delicate touch or manœuvring.

Right leg is also half an inch shorter and three-quarters of an inch smaller than the left; knee-jerk and ankle clonus are evident; he walks with a slight limp.

The treatment latterly has been, of course, only directed to these epileptoid fits and the attacks of sick headache. I began with potassium bromide, 20 grains twice a day, afterwards small doses of tinctura belladonnæ and tinctura digitalis; finally, he is

[1] Read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association held in Leeds.

now taking potassium bromide and tinctura digitalis. For four months he has had no fit of any kind, and he has improved in every way, probably from their absence. For the sick headache I have found nothing so satisfactory in this, as in other cases, as the effervescing citrate of caffeine.

Three or four years ago he saw Sir James Paget on account of hemiplegia. Massage and galvanism were recommended, with the result that, as I have stated, the muscles are in very fair condition. The diagnosis is, I think, clear; it is a case of congenital cerebral spastic palsy, the birth palsy of Gowers, with epileptoid convulsions coming on rather late in puberty. I called it congenital because apparently it dates from birth, and cerebral because the difference of the two sides of the head, the spastic hemiplegia, the electric reaction of the muscles, and the later developed epileptoid convulsions leave me no room to doubt that the brain is responsible for his condition. I also, for the same reasons, feel pretty sure that the locality of the lesion is in the cortex cerebri, covering the leg and arm centres on the left side, and that lesion now is almost certainly a localised atrophy, the cause of that atrophy being, as Dr. Gowers says on this subject, meningeal hæmorrhage, which occurred probably during parturition. The association of those migraine-like attacks with epileptoid fits is suggestive of the near alliance mentioned by Dr. Hilton Fagge and others between migraine and epilepsy proper.

The second case I am bringing before you is that of a girl, aged 13, suffering from infantile cerebral palsy, and I am much indebted to the kindness of Mr. A. L. Peacock, of Lincoln, for an opportunity of seeing her and making notes of her condition. She seems to have been a fairly healthy child till she was 3½ years old; then, in close connection with an attack of measles—the mother's memory was rather shaky as to the exact relation in time of the two—she was seized with aphasia and right hemiplegia. Since then her speech has never been quite perfect.

Present Condition.—She is an intelligent child; head well shaped and equal on both sides; eye movements normal; sight excellent. Her right arm and leg are much weaker, and the right leg is half an inch less in circumference than on the left side. The right foot is always colder than the left. No deep reflexes are to be gained in right arm or leg, though the left knee-jerk is very obvious. There is no spastic condition of muscles of the palsied limbs. No affection of sensation was evident; micturition and defæcation were quite natural.

In this case again I think that the hemiplegia, with no great atrophy or ill development of muscles, accompanied by aphasia at its first onset, points indisputably to the lesion being cerebral. The association with measles, as occurred in seven of Dr. Gowers's, four of Dr. Abercrombie's, and four also of Dr. Osler's, forms a starting point for several diverse explanations. It is almost exactly on all fours with Case No. XCVII in Dr. Osler's admirable little work on *The Cerebral Palsies of Children.* Polioencephalitis, cortical venous thrombosis, embolism, meningeal hæmorrhage, capillary hæmorrhage, are all rivals in the field. Elsewhere I have given a few reasons for thinking that all spastic palsies in children are the result of a cortical lesion produced by meningeal hæmorrhage; and I find, on the authority of Nothnagel[2] that, in thrombosis of cerebral veins, it is not uncommon for rupture of the vessels to occur, causing hæmorrhage into the meninges.

In infantile cerebral palsy the rule is that there be some degree of spasm of the palsied muscles; here, as in three cases of Dr.

Osler's, there was none. Whether this depends on a different locality of the lesion, or upon the more perfect recovery of the once damaged brain cells, I do not know. In this case, as in No. IV of mine,[3] the right great toe was kept turned upwards and backwards. According to D'Espine, this is due to the unbalanced action of the extensor proprius, the plantar arch falling through the paralysis of the peroneus longus; and I have since noticed the same in apparently a genuine case of Erb's primary spastic paraplegia in both toes. In both these cases, and in No. IV above mentioned, the affected limbs were colder than the sound ones, and the same is noted by Dr. Osler in his cases LXVII and LXX. This is not nearly so marked as in acute anterior poliomyelitis. It simply follows, I suppose, from their being old cases of hemiplegia, as Dr. E. L. Fox points out, that the palsied limb appears colder than the other. Whether this be due to chronic irritation of the cortical centres (of Eulenberg and Landois), which, according to these observers, influence the vascular state of the limbs, to the palsied muscles needing less blood, or to the muscles manufacturing a less amount of heat, is beyond my present purpose to discuss.