

and is usually more or less successfully resisted by the child, according to its age.

By mere removal, the attendant may observe how his pain-taking application of the splint has been endured by the limb, what alterations in the mode of application seem desirable, to what extent improvement has rewarded his labours, whilst the infant is indulged in temporary freedom of action of the part.

By frictions, congestion and engorgement are removed, and the temperature of the part equalized. By manipulations, working and stretching of contracted parts, the joint is maintained free from rigidity, no set of muscles is permitted to atrophy from disuse, or to become contracted whilst another set is being elongated, which is a common consequence of weeks' sojourn unmoved in an apparatus. Above all, the contracted parts are, by manipulations, actually elongated, and the improved limb fitted for a splint more nearly approaching the form of the healthy foot.

I would here lay down another axiom in the treatment of this and many other distortions—viz., that the apparatus should be employed almost less as a means of forcing the lapsed part into a good or a better position, than as a means of preventing its relapse into a bad position after use of manipulations.

Pasteboard, gutta percha, or moulded leather splints, may be used in lieu of those made of tin, but these are preferable. Every surgeon will employ with the greatest advantage that material or apparatus with the use of which he is most familiar. More depends upon his tact and diligence, as well as upon the perseverance of the patient's friends, than upon the apparatus selected.

If the case has not greatly yielded by the age of three months, or if difficulty is experienced in maintaining proper adaptation of the splint, a more elaborate instrument may be resorted to. The simplest, least expensive, and most effective is that modification of Scarpa's original instrument, sold by Ferguson under the designation of Dr. Little's thumb-screw movement shoe for varus.^{77*} It is less complicated, lighter than those manufactured with male and female screw, cogwheel, or ratchet-screw movements, and has the peculiar advantage of not impeding action of foot in one direction. It consequently permits manipulation of foot in one direction without removal of it. Viewed theoretically, this apparatus seems incapable of the same powers of adjustment to a required angle whilst on the limb as other instruments, but in practice it will be found that it is convenient, on the few occasions on which it is desirable to alter the adjustment, to do it when the apparatus is removed. I may mention that even in adults this thumb-screw movement is preferable in all forms of foot-deformity where the greatest rigidity does not exist, especially when walking exercise may advantageously be permitted. By pursuing the treatment with the help of this instrument, aided by frequent removal, friction, and manipulation, precisely as in the treatment by splints, the practitioner will be surprised and gratified with the result in cases which may not have appeared promising.

In the treatment of infantile varus without operation, as with its assistance, it is, I repeat, of first importance to obtain eversion of point of foot before attempting depression of heel—in short, to convert the varus into equinus. It will be observed that after the condition of equinus has been obtained, and the attendant considers that bending of the foot alone remains to be effected, a constant disposition of the foot to roll over on its external edge manifests itself. In such cases the practitioner should never advance the screw which bends the apparatus, unless he is certain at each stage that he has effectually conquered the varus tendency.

A common complaint of nurses and others is, that they are unable to keep the heel down. This is a certain sign of the apparatus having been advanced in the direction of bending more rapidly than the foot has yielded. It indicates therefore that the apparatus must be put back into a less bent position. The surgeon should continually have present to his mind the axiom, *arte non vi*—gentle compulsion should take the place of force; and on no account should he be tempted or betrayed into the use of such pressure and force as will occasion pain, excoriation, or sloughing, under any form of treatment. In the infancy of modern orthopædic practice, owing to a prevalent belief that a cure after tenotomy was absolutely required to be effected before the tendons were firmly re-united, the more haste led to the less speed, and such consequences as excoriation, &c., were common; and my ingenuity was much taxed to devise means of pursuing the treatment under such unfavour-

able circumstances, whilst for many years past, in my own practice, with patients of all ages, I have not once seen so much as an abrasion of cuticle. Nothing is so much calculated to embarrass the treatment, or even defeat it, whether or no the surgeon has resorted to operation, as the occurrence of a wound through undue pressure upon a part, the integrity of which is essential, as the fulcrum upon which all apparatus is called upon to act. Under instrumental treatment, wounds can only arise through ignorance, negligence, and impatience.

If the progress made does not correspond to the pains taken, and the essential characters of the talipes varus are almost as marked as at the outset, or are even more strongly marked, the surgeon must conclude that he has either selected an unsuitable case for instrumental treatment, or that some accidental or other cause has neutralized his efforts; and such causes are easily found amongst the difficulties of orthopædic practice, such as unfavourable health of patient, remissness or want of skill of nurse or parent, an unwonted leaving off of apparatus either by day or night; and he must therefore, without further delay, if the child is approaching the time for walking, perform the necessary operation, remembering that, as the operation is an important, or in severe cases, an indispensable adjuvant, he will have similar difficulties with the instrumental treatment after operation to those he has encountered before it. These difficulties are nevertheless surmountable by the surgeon who, with proper knowledge of his profession, and the necessary mental qualities, has the requisite time at his disposal.

(To be continued.)

A CASE OF HEMIPLEGIA; THE PARALYSIS ON THE SAME SIDE OF THE BODY AS THE PARALYSING LESION.

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J. G.—, aged thirty-four, a well-formed and average-sized man, by trade a plasterer, became a patient at the Norwich Dispensary, in September, 1856, on account of a recent attack of head symptoms accompanied by hemiplegia. His history was this: For many years previously he had suffered from occasional attacks of what he called rheumatic gout, the last having occurred only a few weeks before the present seizure. Although not exactly intemperate, he had always been in the habit of drinking freely of beer. Ten or eleven years ago he had chancres on the penis. Two years after this he had a slight attack of paralysis of the left arm, from which he soon recovered. Three years later he suffered from ulcerations of the scalp; and after these had healed he remained in good health until about five weeks since, when he began to suffer from headache, chiefly frontal, with drowsiness and disturbance of the function of sight. This was followed by an attack of sickness and diarrhoea; and after recovery from this, he, four days ago, suddenly found himself unable to articulate and paralysed in the left arm and leg. There was no hereditary predisposition to gout or apoplexy, and no known cause for the present attack.

Symptoms, when first seen by me on September 8th, four days after seizure: Hanging of left cheek; indistinct articulation; inability to whistle or blow with his mouth; slight numbness of the paralysed cheek; protrusion of tongue to the left side; paralysis of left arm and leg, complete as to motion, less absolute as to sensation; diminution of reflex action in paralysed leg; pain of head, referred to the vertex, with much heat of scalp; dilatation of pupils, these being equal, contracting considerably when first exposed to strong light, but almost immediately returning to their former state; laboured and weak pulse, at 60; easy respiration; consciousness unaffected, and intellectual power very slightly impaired. No signs of lead-poisoning or of heart-disease.

In the interval between the commencement of his illness and his death—a period of nearly eight months,—he suffered repeated exacerbations of the symptoms of congestion and pressure within the head. About a week after his seizure, he for a short time completely lost the sight of the left eye, the pupil becoming larger than its fellow, and the upper eyelid

* Represented in Treatise of Deformities by the author, 1853, fig. 119.

drooping. Soon after this, the reflex actions in the paralysed leg became completely abolished.

In October, he suffered from severe pain, without either swelling or redness, in the right knee, which lasted several weeks, and was quite uninfluenced by remedies.

In December, several spasmodic or convulsive seizures occurred, and in one of them he was found stretched across the bed almost in a state of *œpisthotonos*. His mind had now become much enfeebled, and he had a distinct attack of gouty inflammation in the left elbow.

In January, 1857, he continued to become more and more childish. The sphincters were only imperfectly under control. He had a slight cough, and was observed to be losing flesh fast.

In February, the flexor muscles of the paralysed arm had become very tense and rigid, so that attempts to straighten the limb caused very great pain. Voluntary power over the leg was much increased.

He died in April, sinking gradually from exhaustion, death being preceded by expiratory puffing of the cheeks, frequent convulsive tremors of the muscles of the neck and face, apathy, and imperfect coma.

Dissection, April 25th, 1857, twenty-four hours after death.—Head: The parietal and frontal bones marked on their outer surface by several pits or depressions, the largest as big as a shilling, evidently cicatrices of old ulcerations. At these places, the bone was found to be quite thin and translucent; and to the inner surface of one, situated in the centre of the left parietal bone, the dura mater was adherent by an old organized patch of lymph. The arachnoid milky nearly everywhere, and quite opaque where it covered the right hemisphere and the base of the brain. A large elongated patch of enormously-developed Pacchionian bodies on the internal edge of right hemisphere, to which the dura mater adhered intimately. At the base of the skull, in one small spot upon the posterior part of the right petrous bone, the dura mater was almost absorbed, leaving only the transparent arachnoid membrane. The anterior surface of both petrous portions of the temporal bones so much thinned by absorption as to leave the slightest possible covering of areolated bone to the internal ear. Pia mater vascular; the cerebral substance somewhat congested; no apparent disease of the arterial system. On opening the left lateral ventricle, the corpus striatum and adjacent part of hemisphere were seen to be more prominent than natural, and had a gelatinous appearance, as if both cedematous and softened. At the junction of the left corpus striatum with the hemisphere was found the remains of an old clot, the size of a horse-bean, the blood being semi-fluid, and like to inspissated bile. The cerebral substance around it was softened, but not discoloured; the substance of the corpus striatum itself was infiltrated with serum, and softened, and occupying its outer and anterior part was a firm greenish-yellow tumour of irregularly-elongated form, about equal in bulk to a walnut, and surrounded by softened and discoloured brain. On the right side, situated in the hemisphere, just external to the corpus striatum and optic thalamus, was a small mass similar in appearance to that found on the other side, consisting of two small rounded nodules, the size of swan-shot, adhering together by a sort of pedicle, and surrounded by softened cerebral substance.—Chest: Old adhesions of pleuræ, chiefly on the left side. At apex of the left lung were some small tubercular masses, some of them in a state of incipient calcification.—Abdomen: Liver large, adherent by old false membranes to the peritoneum, its structure granular and almost nutmeggy; kidneys large and congested; a little purulent fluid in the pelvis of the left.

The cerebral tumours appeared to be composed of a low form of fibrinous exudation, and showed, as their microscopical elements, a granular blastema, containing a large quantity of free oily-looking dots and granules, and corpuscles of various sizes and shapes containing granular matter, and the same bright-looking dots, so many of which were seen floating free.

For the preceding case (a brief notice of which I a few weeks ago brought before the Norwich Pathological Society) I venture to ask a place in the pages of THE LANCET, believing it to be worthy of record as a genuine example of that very rare condition of disease, in which the paralyzing lesion exists on the same side of the body as the paralysis itself. So rare is it, that Dr. Watson ("Lectures on Physic," vol. i.) refers to only two such cases, Dr. Todd (article Paralysis in "Cyclopædia of Medicine") to only four, and Dr. Bennett (in "Library of Medicine") speaks of being acquainted with only twenty-one similar ones as having ever been published. Moreover, the tone of all the authors whom I have consulted on this subject is such as to imply a doubt of the authenticity or trustworthiness of the de-

scriptions in these exceptional instances, or at least to cause it to be inferred that even in them the real paralyzing lesion existed (though perhaps overlooked or unappreciated) as usual in the opposite hemisphere.

It may, perhaps, be urged that as in this case of mine a distinct lesion was found after death in the right half of the brain, therefore there is no need to suppose any exceptional direct, instead of crossed, nervous influence. But it appears to me that, although such an explanation of the phenomena is *possibly* the true one, yet that the whole train of symptoms during life, as well as of the morbid appearances after death, are entirely opposed to such a supposition; for

1. The primary seizure was one of acute disease, apparently hæmorrhage, with either active congestion or inflammation, and probably of a gouty character.

2. The paralysis came on suddenly, and was doubtless due to the clot found on the outer side of the left corpus striatum. This clot was small, (thus accounting for the slight affection of consciousness,) and had not the appearance of being a hæmorrhage resulting from softened brain substance; for although not distinctly encysted, the cerebral matter immediately around it was sufficiently dense, and it was only externally to this that it became very soft and diffuent.

3. The amount and degree of softening were infinitely greater on the left side than on the right.

4. The mass of tumour in the left hemisphere was as large as a good-sized walnut; that in the right scarcely bigger than a pea, and utterly insignificant in comparison with the other.

5. The paralysis of the eye and eyelid, a few days after that of the limbs, was on the left side.

6. There was no atheromatous disease of the cerebral arteries.

7. It is worthy of remark, that the former attack of paralysis of the arm was on the left side, and that the morbid appearance which best accounted for this—viz., an old organized patch of lymph on the inner surface of the centre of the parietal bone, was on the left side also.

For all these reasons, I incline strongly to the opinion that the paralyzing lesion existed in the left hemisphere, that the disease found in the right was secondary in point of time, and that the influence exerted upon the limbs was direct instead of crossed. And much do I regret not to have examined minutely the medulla oblongata, with a view to the possibility of the existence of an abnormal arrangement of the fibres of its anterior pyramids, (a possibility suggested by Dr. Bright,) which, if present, would form a ready explanation of the direct influence exerted in the two attacks of paralysis.

This case is highly interesting in other respects, such as showing a coincidence in the same individual of the syphilitic, gouty, and scrofulous *materies morbi*; but as my object in recording it has been simply to call attention to the exceptional character of the nervous disorder, I shall forbear to enlarge upon its other salient points.

Norwich, July, 1857.

NEW TREATMENT OF CHOLERA:

ITS ORIGIN AND CURE.

By A. C. BOATE, Esq., L.R.C.S.I.,

LATE ONE OF THE SURGEONS TO HER MAJESTY'S 6TH DRAGOONS,
(INNISKILLINS.)

WHAT is cholera?—or what is the nature of this terrible disease, so sudden in its attack, and in many instances equally so in its fatal termination?

In the autumn of 1853, at Newcastle-on-Tyne, where I was quartered with part of my regiment, the cholera prevailed to a fearful extent, so much so that the deaths of the inhabitants in the town and adjoining the barracks were from 100 to 150 daily, and, although the numerical strength of the garrison was nearly 500 men, exclusive of women and children, not a single death occurred. The treatment adopted I will give in detail.

At Newcastle-on-Tyne in 1853, I gave this epidemic my most attentive consideration. Afterwards in Varna, in Turkey, in 1854, (where the troops were nearly decimated,) at which period I became confirmed in an opinion,—which before I had some doubts of, not having had sufficient experience,—that cholera is originated in the brain and spine by some magnetic or electrical condition of the earth and atmosphere, withdrawing or suspending their influence over the various