In the case of the patient who was operated upon, the existence of true hypertrophy of the lip was manifest. It cannot, therefore, be included among the instances in which the thickening is due to an increase in the size of the natural glands of the part, and which are stated by Mr. Bryant (*Practice of Surgery*, vol. i, pp. 492-3), to be often found both in the upper and lower lip.

With regard to the presence of sacculi, the cases of the patient, her mother, and brothers and sisters, bear a very close resemblance to those related by Mr. Jardine Murray (*British and Foreign Medical Chirurgical Review*, vol. xxvi, p. 502, *et seq.*) After enumerating the conditions on which he considers that the sacculi were not dependent—as hare-lip, erratic development of tooth-sacs, arrested formation of lower lip, and peculiarity of development of frænum—Mr. Murray seems somewhat to incline to the supposition of their being due to intra-uterine disease of the labial glands. Probably, our present knowledge of teratology is not sufficiently precise to enable us to arrive at an accurate conclusion with regard to this vice of conformation; but, as perhaps throwing some light upon the subject, I would ask your attention to what occurs when the lip is in the position of “pouting.” In this condition you may notice that the surface of the normal lip presents a slight depression on each side of the mesial line. It is obvious that an arrest of development of the muscular tissue in these situations would occasion these natural depressions to become more marked, and this, I am inclined to believe, is really what has occurred in the cases in point.

In conclusion, permit me to draw your attention to the fact that it would almost seem as though we had here an example of a malformation arising in a family, and present thus far in two generations only.

ON THE EMPLOYMENT OF ATROPINE IN CORRECTING ERRORS OF REFRACTION.

By ANDERSON CRITCHETT, M.A.,

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I AM well aware that the subject-matter of this short paper does not contain even a germ of originality. My plea for its publication however, consists in that which must, I think, be an acknowledged fact, namely, that with respect to the employment of atropine in correcting errors of refraction, there exist two antagonistic views. On the one hand, we hear that its use is seldom, if ever, necessary; on the other, it is had recourse to with extreme frequency.

The former of these views is supported by the practice of many leading ophthalmologists, and presents to its opponents such a formidable quadrilateral as the names of Professors Donders, Snellen, Liebreich, and Javal; the first of these being in itself a tower of strength, for it was Professor Donders who first let in the light of knowledge upon the chaotic ideas which once existed, and elevated the entire subject of refraction to the dignity of a science.

The latter of these views is strongly advocated and put in practice by many of those younger workers who have especially devoted themselves to this branch of ophthalmology.

We may feel well assured that, whenever men of high scientific attainments profess to accomplish the same end by widely diverse methods of procedure, good reasons will be advanced on both sides in defence of the particular plan which is selected; and my chief aim in bringing the matter forward is to elicit opinions which may materially aid us in arriving at correct views on the subject, and in establishing some definite rules of practice.

Having formerly acted as clinical assistant to my friend, Mr. John Couper, at Moorfields Hospital, for nearly seven years, I have had ample opportunities of witnessing the treatment of refraction by absolute paresis of the accommodation, as is almost universally practised by this champion of the method by atropine; and, upon the whole, the impression left upon my mind was favourable to his plan, though I must admit that patients were occasionally put to considerable inconvenience without a compensating advantage; and where, for all practical purposes, the same end might have been otherwise obtained. I find that in my own practice, in working out six hundred and fourteen cases of astigmatism, I have induced paresis of accommodation in two hundred and seventy-three; and, in rather a less proportion, in cases of simple hypermetropia with spasm, and in progressive myopia. Inasmuch as the treatment by atropine is frequently objected to by patients, and involves not a little delay and inconvenience to all concerned, it is self-evident that I was only driven to its adoption by the difficulty, and, as it seemed to me in some cases, im-

possibility, of arriving at a correct and scientific conclusion without it; nay, more, I have found, in not a few instances, that this was the only method of inducing the eyes to submit to a refractive correction which was essential to their well-being, but which, while the ciliary muscle retained its spasmodic power, they would by no means tolerate.

I may, perhaps, best explain my meaning, and establish my position, by citing a typical case which bears upon these points. A young lady, aged eleven, was brought to me more than a year ago, with the statement that for some months past it had been found impossible to proceed with her studies, since every effort to read produced pain and confusion. On testing her sight, I found that each eye saw $\frac{2}{3}$, and was improved to the extent of one letter in $\frac{3}{8}$ by $- .50$ D. She would tolerate no convex glass. On ophthalmoscopic examination, I diagnosed the existence of hypermetropia to the amount of at least 4.5 D, with slight astigmatism in addition, while the discs were in that state of hyperæmia which Mr. Couper has described in connection with high degrees of uncorrected hypermetropia. The eyes were subjected to the full atropine treatment, and examined at intervals of three days. On the first occasion, the child tolerated $+ 1.50$ D, with which she saw $\frac{3}{8}$, and was slightly assisted by the addition of weak convex cylinders. On the sixth day she selected $+ 2.50$ D, and I was then able to ascertain by the ophthalmoscope that the hypermetropia consisted of fully 6 D. Three days later, the patient, with $+ 4.25$ D and weak cylinders, saw nearly $\frac{3}{8}$.

On the fourteenth day, very little progress had been made since the last occasion. I therefore substituted sulphate of duboisia, two grains to one ounce, for the atropine, with the remarkable result that, at the end of three days, the manifest hypermetropia amounted to 7 D, and the vision obtained equalled $\frac{3}{8}$. In accordance with the suggestion made by Professor Knapp, I, in determining the final correction, made due allowance for the partial recovery of accommodation. The child was enjoined to wear the glasses constantly; in fact, to regard them as part of her attire. I saw her a month ago. She sees $\frac{3}{8}$, and reads Jäger I with each eye. The retinal hyperæmia has entirely disappeared, and the parents informed me that she decidedly resented any proposal to take away her glasses.

I merely select this as a specimen of a large group of cases which occur in the practice of every ophthalmic surgeon; and I venture to submit that, in such instances, I should be unable either to arrive at a true diagnosis, or to establish a proper refractive correction, unless aided by complete paresis of the ciliary muscle through the agency of mydriatics. I readily agree, however, with those who assert that the ciliary muscle should, wherever it is practicable, be allowed free and natural action; and I admit that the dogmatic treatment by atropine, where the eyes are forced to accept a permanent and complete correction, is open to the imputation that they are doomed to a perpetual though friendly servitude; but in many instances the sense of permanent relief from strain is so agreeable to the patient, that “the captive hugs his chain”.

CASE OF SPASTIC PARAPLEGIA IN AN ACROBAT.

By H. DONKIN, M.B., F.R.C.P.

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ON October 12th, 1881, I saw, among my out-patients at Westminster Hospital, an acrobat or “contortionist”, aged 20, who complained of weakness and tremulousness of his legs, the left being the worse. These symptoms had been coming on gradually, being first noticed about six months previously, and were steadily increasing. He was apparently in excellent health, and made no other complaint. He had been a “delicate child”, but “in the business” ever since he was four years old. He has certainly not had syphilis, nor, indeed, any illness whatever. His family history is good, and he has several brothers and sisters, healthy, and all following the same occupation as himself. About three years before I saw him, he appears to have hurt his back while going backwards quickly. He felt the pain for about three or four weeks at the most, and kept on performing without intermission, thus continuing his work till he came to the hospital; the symptoms of weakness and shakiness of the legs having, as I have said, been noticed in a very slight degree only six months before coming, and the previous two years and a half (since the hurt to his back) having been absolutely free from any kind of discomfort or failing.

On examination, I found him apparently quite healthy, with the exception of the symptoms of which he complained. He seemed to have some difficulty in walking, saying his legs were not strong enough for him to walk fast; and he used a stick. The front part of the left foot occasionally scraped on the floor as he tried to mend his pace. His muscular development was everywhere good. The knee-

jerk in both legs was well marked, but not excessive, with no remarkable difference between the two. I failed to elicit the ankle-clonus. The functions of the rectum and bladder were normal.

Ordering him as complete rest as possible, and absolute cessation from his work, I saw him at irregular intervals till the end of November. He made marked improvement at first, being able to walk faster and without the aid of a stick. But he soon began to "practise" a little every day (a fact which I did not know at the time), though taking no regular engagement; and on November 30th, although he confessed to no relapse, he was again walking with a stick. The ankle-clonus was then found to be readily elicited, and the knee-jerk excessive. He also said that he passed his urine rather more slowly than before, and that his bowels were rather confined. At the end of December, however, he took an engagement abroad, and worked hard—first in Berlin, and then in Paris—literally every night for six months. During the whole time he felt himself gradually getting worse; he fell several times on getting to his legs, and found that he had to restrict his "business" to the arms as much as possible.

On July 12th of this year (1882), I saw him again. His general health was very good. He still says that he cannot empty his bladder quite so quickly as he used, that his bowels are rather confined, and that he does not sleep quite so soundly as in former times; but these complaints are not prominent, and only stated in answer to questions. The note of this date states: "The knee-jerk is extreme, passing into knee-clonus, and shaking the whole body. Spastic gait well marked, though there is but slight rigidity when he sits or lies down. Very ample tremors elicited by the slightest attempt to produce ankle-clonus." He was now ordered complete rest again; and since that, though he says he is again better, and can walk more easily, the above mentioned symptoms are much the same, if not more marked. His arms seem very strong, and his grasp powerful, though they appear, he says, a little smaller than before—probably from disuse since the end of June.

This case appears to be a well-marked one of spastic paralysis, or so-called "primary lateral sclerosis": a disease which, though but lately distinguished clinically, and still more lately connected with definite *post mortem* lesions, is probably not so rare as is sometimes taught, being detected with increasing frequency. The primary nature of this case is, I think, clear; for, with all due regard to the history of the hurt to the back, the rapid recovery and the absence of all symptoms during the subsequent two years and a-half may be looked upon as putting out of court the existence of any inflammation of the spinal cord at the time, and forbidding us to attribute the disease to this accident. But it is the possible causal connection of the disease with the occupation of the youth that gives the case any special value; and it would seem that the speculative view of the cord-change, now, in all probability, existing, being a possible result of the abnormal action of the muscles of the lower extremities, is—at least worthy of some consideration.

The patient is apparently now *in statu quo*. The functions of the bladder and rectum are performed quite normally; and, beyond occasional complaints of flatulence after food, his general health is thoroughly good.

A CASE ILLUSTRATING THE USE OF GYMNASTIC TREATMENT.

By ALFRED H. BUCK, L.R.C.P.Ed.

MR. S., aged 84, consulted me on August 11th, 1882, for a pain situated in the posterior portion of the right thigh over the great sciatic nerve, being most intense just below the great trochanter, and extending down to the knee-joint. Movement and pressure upon the nerve increased the pain. He had been suffering for more than two months prior to his visit to me. The pain was of a gnawing character; and, when he was in bed, the limb had a burning sensation, but to the touch was quite cold. During the early portion of the illness, the pain became most intense at 4 A.M. and 4 P.M. Shortly after he had been under my treatment, pain of a similar character attacked him close to the spine, on a line with the crest of the ilium, and corresponding to the third lumbar vertebra. His nights became disturbed, and he looked wan and ill. No assignable cause could be ascertained for these symptoms, except that, some months previously, he remembered stumbling over a stove, and, in the effort to save himself from falling, he twisted the muscles of his back; and since that time he had had more or less pain when walking.

The local treatment consisted of belladonna, chloroform, morphia, aconite, fomentations, turpentine, hot hip-baths, flannel bandages; and other remedies were tried, without producing any beneficial effect,

or relieving the stiffness and inability to walk. The principal medicines given internally were arsenic, belladonna, and quinine. The arsenic relieved the burning sensation in the limb, and the quinine the periodic paroxysms of pain. After he had been under treatment for about six weeks, with the result above described, I advised him to try the treatment at the Zander Medico-gymnastic Institute in Soho Square; and, as the medical officer considered it a suitable case for the treatment, he undertook the case.

Mr. S. is now (November 4th) able to walk in comfort for upwards of an hour, and there is only a slight tenderness on pressure at the previously painful spots. He is also able to rest well at night, and he has quite regained his usual health and strength. The medical officer, Dr. Oxley, writes me: "The treatment consisted in rapidly 'percussing' the affected parts every other day, and giving the hips and lumbar regions carefully regulated movements; this being done by machines of a very ingenious yet simple character. The apparatus employed consisted of, (a) a machine by which carefully graduated extension and flexion of the hips was made; (b) a machine by which the lumbar region was in like manner carefully rotated from side to side; (c) a machine by which very powerful friction and a kind of vibration or trembling was applied to the painful and adjacent parts. My reason for applying the above means was founded on observation. I had treated several cases before Mr. S. was sent by you, and had been very much struck by the results of the treatment. I had always thought that, for such ailments as lumbago, muscular rheumatism, and sciatica, as soon as the early acute symptoms had passed, no treatment would be so likely to be successful as that of giving to the affected parts movements of at first a very slight degree, and then carefully increasing them. By means of Dr. Zander's appliances, such movements can be most exactly performed; and repeatedly they have accomplished what was desired. In the case of Mr. S., as often happens, the bad symptoms increased at first; and I had some difficulty in persuading him to continue the treatment. In a few days, however, the pain and stiffness began to disappear; he could sleep well, and very soon began to walk in a much more erect manner and without help. At the present time, after ten visits, he walks without sticks and without pain. Mr. S. seemed to find most benefit from the 'trembling' machine. Whether this was the result of the friction, or of some deeper physiological effect, I cannot say. The trembling or shaking has, however, a marked effect upon the circulation, increasing it in a striking degree; and it may be in this way that the good is done. There is no doubt, however, that the nerves are also powerfully influenced. In whatever way achieved, however, the cure was a most painless and satisfactory one."

THERAPEUTIC MEMORANDA.

LOCAL TREATMENT OF ERYSIPELAS.

THIS subject deserves every attention, and the readers of the BRITISH MEDICAL JOURNAL ought to be thankful that it has been so often discussed. But the question of etiology is, perhaps, not always clearly grasped, although it must determine to a large extent the type of the disease, and its successful management. Take erysipelas of the scalp, for instance: a superficial erysipelas is a very innocent thing, and easily controlled; but there is hardly a more dangerous malady than traumatic erysipelas of this part, accompanying profuse suppuration in the connective tissue between the occipito-frontalis muscle and the cranium.* Again, if the sanitary arrangements of a private house or of a large public institution be defective, there may be frequent epidemics of facial erysipelas and of enteric fever, either separately or conjointly, as happened in the Somerset Lunatic Asylum in 1879 and 1881 (BRITISH MEDICAL JOURNAL, October 29th, 1881).

But if surgical and hygienic agencies can be safely put aside, it may be acknowledged that the local treatment of erysipelas deserves a large amount of professional care and discrimination. Call it by what name we like, it is essentially a spreading dermatitis, which may cause peril by the extent of cutaneous surface involved, or by the degree of constitutional irritation which may be provoked. It is not often that we have a quasi-inflammation so completely under therapeutic command. Iodine may be useful if there be any suspicion of a pyæmic complication; but, for the so-called idiopathic erysipelas, I cannot speak too highly of the free and frequent application of a solution of tannin in equal parts of spirits of wine and water, as recommended by Dr. Braithwaite in the JOURNAL for April 30th, 1881. This solution is

* See an excellent lecture by Mr. Erichsen on this point, *Lancet*, January 26th 1879.