A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et mor-
porum et dissectionum historias, tum aliorum tum proprias collectas
habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*,
lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

EPITHELIOMA OF TONGUE AND GLANDS; REMOVAL BY
KOCHER'S METHOD; PATIENT FED FOR A FORTNIGHT
THROUGH A TUBE RETAINED IN THE WOUND;
COMPLETE RECOVERY.

(Under the care of Mr. A. E. BARKER.)

THE point to which we would direct special attention in this case is the method employed of feeding the patient after operation. Great advantage was derived from the use of the tube, the patient being well fed, and that without discomfort to himself; whilst, as Mr. Barker points out, no irritation or unnecessary disturbance of the wound was required.

S. W.—, aged fifty-eight, was admitted on Aug. 20th, 1886, suffering from extensive epithelioma of the right side of the tongue and of the submaxillary lymphatic glands on the same side. The disease had appeared on the right side of the tongue about five months before admission, and had rapidly extended to the pillar of the fauces. When first seen there were enlarged glands beneath the chin and over the carotid vessels below the angle of the jaw. The suffering was very great and the difficulty of taking food extreme. The patient had come over from America to obtain relief.

In view of the extent of the disease, and the implication of the glands, Kocher's method of operating was selected as giving freer access to the latter and control over the lingual artery before section of the tongue; it also offered an opportunity of putting in practice a means of feeding the patient subsequently during the healing of the wound, which it had occurred to Mr. Barker might possess many advantages.

The mouth having been constantly cleansed with chlorate of potash lotion from the day of admission to the 25th, the face and neck were shaved and thoroughly washed with carbolic lotion. An incision was then made from a point just below the lobe of the right ear to the body of the hyoid bone, then horizontally forwards along the body of the latter for three-quarters of an inch, and then up to the symphysis of the jaw. The flap of skin thus marked out was now dissected up towards the jaw and the whole submaxillary space exposed. This was then completely cleared out of all glandular structures, an infiltrated mass being also removed from over the carotid vessels, and also from beneath the chin. In this dissection the facial artery and vein were divided and doubly ligatured. When the digastric space had been completely cleared of all secondary infiltration of glands the lingual artery was ligatured behind the hyoglossus muscle. Then Kocher's method was so far modified that the tongue was attacked from within the mouth. The latter being held open with a gag, the organ was secured with a cord passed through its tip and held over to the left. It was then detached from the jaw all round by means of scissors, which were made to cut straight down to the hyoid bone at once. When well isolated, it was divided with scissors obliquely across at its root from left to right, the left lingual artery being at once caught up with Wells' forceps. During this part of the operation but little blood was lost and no trouble was experienced. The first wound in the neck, provisionally closed with a carbolised sponge, was now open to the mouth and pharynx, and there was thus free access to the whole area of operation. This was then carefully cleaned, dried, and dusted with iodoform, and the two ends of the incision were stitched, the middle being left unclosed for drainage. Through this part of the wound a piece of rubber tubing about a third of an inch in thickness and eighteen inches long was introduced and passed well down the œsophagus, the other end being secured to the right ear. The neck around the edges of the wound was now dusted with iodoform and carefully padded with salicylic wool, a great mass of ordinary wool being

packed over all round the neck to secure the head from movement, which end was fully attained when the mass of wool was firmly bandaged. The rubber feeding tube projected above the wool at the ear.

The patient suffered but little shock from the operation. In the evening a quantity of beef-tea was poured into the stomach through the rubber tube, without disturbing the patient or the wound in the smallest degree. This method of feeding was continued every four hours or so for sixteen days, and was a great improvement on the ordinary methods. The dressing was left undisturbed for two days, and was then replaced by fresh packing as before, the skin wound healing by first intention, except at the spot where the tube lay. The latter was left *in situ* until the floor of the mouth was nearly healed, and was only removed on Sept. 9th. Cicatrisation was rapid and unaccompanied by any trouble; the temperature remained normal throughout, and the patient was very cheerful and rapidly regained strength from the regular feeding. The latter was carried out in the simplest manner by introducing the point of a funnel into the tube lying outside the dressings, and through this pouring in beef-tea, milk, eggs, &c. The patient had not to move, and the mouth was left undisturbed.

Remarks.—The chief points of interest in this case are, first, the extent of the operation. Not only was the tongue removed with the structures of the floor of the mouth on the right side, but all the glands of the submaxillary space from the chin to the lobe of the ear. And yet there was but little shock—a fact due probably to the ease with which bleeding can be arrested in operating from without. The next point to be observed is that by operating as above it was possible to keep the wound in the mouth absolutely clean from beginning to end, and at the same time to maintain the parts in a state of perfect rest. The patient had nothing to say to his own feeding; in fact, it could be done while he was in any position without disturbing him. No food passed through the mouth, consequently the wound in the latter could be treated like any other wound, and did not need even to be washed out receiving only a puff of iodoform from time to time. As there was no swallowing, there was no pain. Mr. Barker was much struck with the superiority of this method of feeding over that by enema or nasal tube, and has adopted it since in other similar cases with equally satisfactory results.

The patient was seen some months later, with no trace of recurrence, looking very well, and very much pleased with what had been done for him.

OLDHAM INFIRMARY.

CASE OF PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS IN
ITS FIRST STAGE, OR PROGRESSIVE MULTIPLE
NEURITIS; RECOVERY.

(Under the care of Mr. FAWSITT.)

FOR the following notes we are indebted to Mr. John J. Weaver, late house surgeon.

P. B.—, aged twelve years, a rope-maker (i.e., engaged in making or repairing ropes), was admitted on Oct. 1st, 1886. About five weeks before admission he noticed some numbness or "cramp" in the thumbs and fingers of both hands, especially affecting him in the early morning, and he was in the habit of calling his mother up about 5 o'clock in the morning to rub his hands on account of the pain. The mother would rub them for about ten minutes or so at a time. She thought the pain had something to do with the boy putting his hands into water at his work. This affection of the fingers lasted on and off for about a fortnight, and was then followed by the pains in the calves of the legs described below. The mother noticed that about this time the boy seemed less inclined than usual to run about, but preferred to sit down and read to her instead. Three weeks before admission the patient noticed a "dull" pain in the calves of his legs, which came on about four times a day, and lasted about ten minutes at a time. Less than a week after this pain in the calves commenced, the boy fell one day while at work, and then found that he could not get up again. He crawled to a stake in the ground, and by means of that raised himself up. This fall was the first symptom that caused the mother to seek medical advice, and for which she brought the boy to the infirmary. About a week after the fall the patient stated that he had on one occasion some aching pain at the bottom of the back, lasting about

fifteen minutes; no recurrence since. For about three weeks before admission he was in the habit of wetting his bed now and then—not an old habit with him. It occurred also once or twice after admission during the first week or so, but ceased altogether afterwards. Previously to his present illness he has always had very good health, and been able to run about as well as other boys. Family history: Father and mother living and healthy; one sister, aged eighteen, healthy; one brother, aged sixteen, consumptive. Both sister and brother were seen at the infirmary. No history whatever of any previous similar case in the family. Mother's sister's children in Australia; none affected.

On admission the patient was a bright, intelligent, and healthy-looking boy. When put on all fours he was quite unable to get up. His efforts to get up were characteristically those of pseudo-hypertrophic paralysis. When asked to stoop and pick up a pin from the floor he raised himself with great difficulty from the stooping position by placing his left hand just above his left knee, and so pushing himself up. He could get up easily from the sitting position, as from a chair, to the standing position. Gait somewhat waddling. He raised his knees up rather higher than natural, and put his feet down again forcibly; easily tumbled over on turning round, or on the least push. He was quite unable to get up the stairs leading to the ward, and had to be carried. He could walk about the ward, but was easily tired. When standing the legs were held apart and were unsteady; there was slight rocking of the body backwards and forwards, and he seemed unable to stand perfectly still. Decided increase in lumbar curve, and abdomen protuberant. A plumb-line let fall from the most prominent dorsal spines easily escaped the sacrum. Calves of legs hard, the hardness being very noticeable even when the patient was lying on his face on the bed. Calf muscles apparently not enlarged, though they compared favourably in development with the rest of the muscular system. Measurement of calves (greatest diameter): right calf $10\frac{1}{2}$ in., left calf $10\frac{3}{4}$ in. No apparent enlargement in muscles of thigh or in the infra-spinati. General muscular system poorly developed. Pectoral muscles much wasted, especially the lower or sterno-costal portions. The latissimi dorsi muscles could not be brought into view. No wasting of muscles of hands or thumbs; no weakness of hands out of proportion to general muscular development. Muscles of face unaffected. Sensation everywhere unaffected. Intellect very good. Knee jerk in both legs absolutely lost. No ankle clonus.

Oct. 4th.—Electrical reactions: Patient flinches so much with even the weakest currents that it is very difficult to be sure of the results. The gluteal muscles give with the faradic current apparently diminished reaction; with the galvanic current the reaction seemed at first apparently increased, afterwards uncertain. The reactions of the calf muscles to both forms of electricity are greatly diminished.

5th.—Patient begins to walk better. Can now get up from the stooping position after picking something off the floor with difficulty, but without placing his hand upon his knee. He cannot get up from all-fours.

6th.—The boy can to-day for the first time get up from the all-fours position by placing his left hand upon his left knee.

7th.—Patient vomited yesterday, morning and afternoon, and also this morning. Constipated; ordered aperient. No recurrence of vomiting.

9th.—Patient can get up from the stooping position without the use of his hand upon his knee. In getting up from the all-fours position, still uses his left hand upon his left knee; walking much improved. He appears to feel both forms of electricity more on the left side of the body than the right.

16th.—Patient was allowed this afternoon to go out into the infirmary yard, but ran away to his home, which is only a few streets away from the infirmary. He was, however, brought back by his mother in the evening. He was a good deal distressed at being brought back, and his walking was much worse. He was quite unable to get up the stairs to the ward, but had to be assisted by someone supporting him on either side.

Nov. 6th.—Dr. Ross, having kindly promised to see the case, the boy was taken over to Manchester. In getting into the railway carriage, the step being rather high, he placed his left hand upon his left knee to push himself up. Dr. Ross pointed out the very extensive fibrillary contractions

in the muscles of the back, legs, and triceps muscles of the arms; also the general muscular wasting. Grasp of hand, fair strength. Patient, sitting and resting heel upon ground, is able to raise toes from the floor. Dr. Ross apparently easily obtained electrical reactions in the muscles of the back by faradism (even with dry electrodes), but with galvanism the reactions could not be made out on account of the patient's flinching. This was the only occasion on which Dr. Ross saw the case, and, as will be seen from the notes, the boy's condition by this time had very much improved. From the symptoms as they then existed, Dr. Ross was therefore unable to confirm the diagnosis of pseudo-hypertrophic paralysis. One note, made at the time, but which until now on account of its uncertainty has been omitted, is to the effect that in grasping anything "the dorsum of the hand was drawn slightly towards the extensor surface of the forearm in the act, one hand (left?) more so than the other." On repeated trials it was very uncertain, and therefore it was afterwards omitted. It proves, however, that there was no loss of power of extension of the wrist.

Measurement of calves (greatest diameter).

			Right leg.	Left leg.	Boy's weight.
Calves decreasing in size.	Oct. 1st*	...	$10\frac{1}{2}$ in.	$10\frac{3}{4}$ in.	—
	" 11th	...	$10\frac{1}{4}$ "	$10\frac{3}{8}$ "	—
	" 13th	...	—	—	$65\frac{1}{2}$ lb.
	" 17th	...	10 "	$10\frac{1}{4}$ "	$65\frac{1}{4}$ "
Calves increasing in size.	Nov. 6th	...	10 "	$10\frac{1}{4}$ "	$66\frac{1}{2}$ "
	" 18th	...	$10\frac{1}{4}$ "	$10\frac{1}{2}$ "	67 "
	Dec. 10th	...	$10\frac{1}{4}$ "	$10\frac{1}{2}$ "	$67\frac{3}{4}$ "
	Jan. 3rd	...	$10\frac{1}{2}$ "	$10\frac{1}{2}$ "	68 "
	" 7th†	...	—	—	—
	" 17th	...	11 "	11 "	$71\frac{1}{2}$ "

* Date of admission.

† Patient discharged.

It will be noticed that at first there is a gradual decrease in size of both calves, followed later by a gradual increase in size, accompanied then by a gradual increase in the patient's weight.

Treatment.—On the assumption that the case was one of pseudo-hypertrophic paralysis, the treatment adopted was that recommended by Duchenne for the first stage of the disease—viz., faradisation and shampooing. The boy was therefore shampooed daily for about twenty minutes at a time, the muscles being thoroughly well rubbed and squeezed, and electricity, sometimes one form, and sometimes the other, but most frequently the faradic current (being much better borne), was applied directly to the muscles. In addition, a mixture containing syrupus ferri phosph. comp., and five-minim doses of liq. strychniæ and liq. arsenicalis was prescribed. The boy was kept in bed as little as possible and encouraged to move about.

Jan. 7th, 1887.—The patient was discharged from the infirmary. With the exception of the total absence of knee jerk, he appeared to be in perfect health. His gait was natural; he could get up from all-fours naturally and without difficulty, and could again run about perfectly well. He was seen again on Jan. 17th.

Feb. 17th.—Patient was seen at the infirmary. The improvement is still maintained. The knee jerk is still absent. The patient's general muscular development is much improved, especially the condition of the pectoral muscles. The latissimi dorsi muscles also can now be made out. The calf muscles have still further increased in size, both calves now measuring $11\frac{1}{2}$ in.

July 11th.—This was the last occasion on which Mr. Fawsitt saw the boy, six months after his discharge from the infirmary. The only trace of any disease that could then be found was the fact of the knee jerk being still absent. But on this occasion for the first time, though he had tried the method at all previous examinations, a very slight knee jerk was obtained by getting the patient at the same time to interlock his fingers and pull upon them (Jendrassik's method). The jerk was very slight on either side, but slightly more marked on the left side than on the right. The calves now measured 12 in. The boy got up from all-fours position with perfect ease.

In addition to the above account, one or two facts which cannot so well be put under dates may be added. First, as to the patient's manner of getting upstairs. On admission the boy could not get upstairs at all, not even with the help of the banisters. As his condition improved he was able to

get up by pulling himself up by both hands, the hand nearest the banister being placed on the top of the banister and the other on the banister rails. At the time of his discharge from the infirmary he was able to get upstairs without touching the banisters. The boy's intelligence was very good, as shown by his clear answers to questions, and by the fact that soon after his admission he proved himself the best draughts player in the ward.

Remarks by Mr. WEAVER.—I am fully aware of the difficulty of diagnosis in this interesting case. Undoubtedly at first sight the case appeared from the collection of symptoms and their well-marked nature to be a case of pseudo-hypertrophic paralysis, and as such I believe it was certainly regarded at that time by all who saw the boy. On different occasions soon after his admission to the infirmary this patient was seen by each member of the medical staff, and also by one or two occasional medical visitors to the infirmary, and although the absence of any marked enlargement of the calves or other muscles was noted, the diagnosis of pseudo-hypertrophic paralysis was on no occasion disputed. When, however, later, it was found that the boy's calves were not increasing in size, but rather decreasing, and that at the same time his general condition as to walking, getting up from the floor, &c., was rapidly improving, in my own mind at least a doubt arose as to the diagnosis. At this time, however, I was inclined, rightly or wrongly, to regard the decrease in size of the calves as possibly due to the smaller use of the muscles, resulting from the change of the boy's circumstances, involving the confinement in a hospital ward, and the additional necessity of the boy keeping his bed at times for the purpose of treatment by shampooing and electricity. I was also aware that almost every conceivable condition of the muscles as to size had been recorded in pseudo-hypertrophic paralysis, and that even, as Dr. Gowers states, "the absence of muscular enlargement is of little significance."¹

The actual size of the calves of this patient is, I think, worthy of note, though I do not wish to lay much stress upon this point. In this boy of twelve years, in whom the general muscular system was poorly developed, as noted by myself and afterwards by Dr. Ross, the right and left calves measured respectively $10\frac{1}{2}$ in. and $10\frac{3}{4}$ in. From a few comparative measurements I have made of calves of other patients about the same age I believe this patient's calves to have been rather above the average size. They may be compared also with a case of pseudo-hypertrophic paralysis recorded by Dr. Gowers,² in which in a boy aged thirteen years and a half the calves measured respectively $10\frac{1}{2}$ in. and $10\frac{3}{4}$ in., and are thus described—"Their undue size and firmness were very distinct"; and a case recorded by Mr. W. Adams, in which in a boy aged fifteen the calves are described as "large and prominent, each $9\frac{1}{2}$ in. in circumference."³ But regarding the muscles as not markedly enlarged, the case still seemed to me to correspond exactly in all its symptoms with the first stage of pseudo-hypertrophic paralysis, in which, as described by Duchenne, there is loss of strength without muscular hypertrophy, a stage of the disease also recognised by Charcot as "the first clinical stage noticed by all observers, a period in which the only appreciable symptoms consist in a more or less marked weakness of certain muscles which do not as yet exhibit any apparent hypertrophy, and which even sometimes show themselves manifestly atrophied."⁴ Lately I have been able to compare the case with two cases of recovery from pseudo-hypertrophic paralysis recorded by Duchenne in the *Archives Générales de Médecine*, 1868. As considerable doubt has been thrown by most authorities on the nature of these cases, I may be allowed to point out that the two cases of recovery were respectively the ninth and thirteenth cases of a series of thirteen cases of hypertrophic paralysis, upon which Duchenne founded an exhaustive and accurate description of the disease as it is known at the present time. The description was published in 1868. Duchenne had met with his first case of pseudo-hypertrophic paralysis in 1858; his first case of recovery (the ninth of the series) occurred in 1863; his second case of recovery (the last of the series) in 1867.

Of the first of these two cases, that of a boy aged seven years and a half, though the details are not fully reported, Duchenne says: "When I was first called to this young patient I made out the whole of the symptoms characteristic of pseudo-hypertrophic paralysis, but the apparent hypertrophy is slight and limited to the gastrocnemii; the lordosis is moderate (the father says it has increased)."⁵ The second case of recovery, the case of a girl aged six, is fully reported as having all the characteristic symptoms of pseudo-hypertrophic paralysis, including separation of the legs while standing and walking, throwing back of the body (lordosis), waddling gait, the characteristic method of getting up from all-fours by putting the hands on the knees and mounting up the thighs.⁶ In this case also the size of the muscles of the lower limbs is reported as "far from attaining the ordinary proportions of a more advanced stage of the disease," but as "contrasting with the thinness of the upper extremities." The treatment of this case is given in detail further on in the articles (p. 578). The different phases of this last case were evidently followed up closely by Duchenne, as he himself states.⁷ It seems therefore impossible, whatever may have been the nature of these cases, to have any doubt as to the symptoms. The close resemblance of these two cases and the case I have reported I think is clear.

After the patient had left the infirmary I submitted the notes of the case to Dr. Gowers, and he expressed the opinion that the case was "certainly one of the muscular disease of which pseudo-hypertrophic paralysis and idiopathic atrophy are varieties. To which of these varieties your case belongs is a question to which different authorities might give different answers. . . . I should myself place it with pseudo-hypertrophic paralysis. The condition of the latissimi and pectorales, so far as my experience goes, is a conclusive proof of the nature of the malady." To account for the rapid onset and rapid improvement, Dr. Gowers is of opinion that in this case there was "a supra-added functional impairment of the nervous system which was manifested most by the muscles that were weakest, and so produced the semblance of a more advanced stage of the disease."

Dr. Ross, on the other hand, regards the case, "with cases of the kind reported as occurring in children after measles, chorea, scarlet fever, rheumatism, diphtheria, and other diseases, as a case of progressive multiple neuritis." Dr. Ross also considers that the cases of chronic poliomyelitis occurring in infants, as described by Dr. Bennett, belong to the same group.

If this case is one of progressive multiple neuritis, is it not possible to go a step further, and regard pseudo-hypertrophic paralysis itself as a progressive multiple neuritis? May not the pathological change in the muscles in pseudo-hypertrophic paralysis be regarded as a special manifestation of the later stages of the disease, and dependent perhaps, as Duchenne, after discarding the spinal origin of the disease, held, on a lesion of the vaso-motor system?⁸ The frequent occurrence of vaso-motor changes in multiple neuritis has been pointed out by Dr. Buzzard,⁹ and that a change in the muscles corresponding anatomically with the changes observed in pseudo-hypertrophic paralysis may follow a nerve lesion is also made clear by a case recorded by Hitzig and quoted by Dr. Gowers, in which, after an "injury to the nerves of the arm near the shoulder-joint, a slow increase in the size of the arm resulted, and the condition of the muscles was found, by harpoon examination, to be the same as in pseudo-hypertrophic paralysis."¹⁰

⁵ *Archiv. Gén. de Méd.*, 1868, p. 17. ⁶ *Ibid.*, p. 23. ⁷ *Ibid.*, p. 577.

⁸ *Ibid.*, p. 569. ⁹ *THE LANCET*, Nov. 28th, 1885.

¹⁰ Pseudo-hypertrophic Paralysis, by Dr. Gowers, p. 45.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—The office-bearers of this Society for the session 1887-88 were elected at a meeting of the Society on the 7th inst., and are as follows:—President: Professor T. McCall Anderson. Vice-Presidents: Dr. D. C. McVail, Dr. Alex. Patterson, Dr. Jos. Coats, Dr. Jas. Stirton. Council: Dr. S. Gammell, Dr. J. W. Anderson, Mr. A. E. Maylard, Dr. D. N. Knox, Dr. Alex. Robertson, Dr. Wm. McEwen, Dr. Edward Macmillan, Dr. A. Wallace. Treasurer: Dr. Hugh Thomson. Secretaries of Sections: Dr. Geo. S. Middleton, Dr. John Barlow, Dr. T. K. Dalziel, Dr. T. F. Gilmour. General Secretary: Dr. Wm. G. Dun.

¹ Monograph on Pseudo-hypertrophic Paralysis, by Dr. Gowers, p. 50.

² *Ibid.*, p. 15.

³ Note by Dr. Poore in his Translation of Selections of Duchenne's Works, New Sydenham Society, 1883, p. 189.

⁴ Charcot's Lectures on Diseases of the Nervous System, New Sydenham Society Translation, 1881, p. 383.