worry. The drug acts as a stimulant and derivative, and is stated to act best in plethoric cases. No beverages containing caffeine should be taken after breakfast.

In nervous and hysterical women, and especially in women at the menopause, the bromides are very useful. I have long been in the habit of giving a mixture of bromide, tincture of sumbul, and tincture of hop, in camphor water at the climacteric; and it has helped to remove the insomnia as well as the mental depression and flushing heats so common at this period.

The sleeplessness of the insane requires careful management. In the early stages of acute mania, the bromides, chloral, hyoscine hydrobromide, and other sedatives are useful, but a hot bath at a temperature of 104° F., and cold water simultaneously poured upon the head, are most efficacious in inducing sleep. In melancholia, where arterial tension is usually high, paraldehyde in doses of $\text{m}\lambda\text{l}$ to mxc , or even more, is a valuable hypnotic. So is morphine, but a grain dose of erythrol tetranitrate, by reducing arterial tension, will frequently act better than anything else. In mild cases of delirium tremens sleep usually comes on after a time whatever treatment be adopted; in the more severe cases chloral and bromides, alone or in combination, are beneficial. Paraldehyde is recommended by some physicians. Opiates may be given, but in most cases hyoscine is probably a more efficient remedy. Among the medical officers of the American army twenty grains of powdered capsicum, in the form of a bolus, is the favourite hypnotic for this complaint. Cerebral depressants should be given as little as possible, and the treatment should be confined chiefly to feeding and tonic measures. In pneumonia sleep comes usually at the crisis; but where this has not occurred I have occasionally seen a hypnotic, such as chloralamide or paraldehyde, turn the scale in favour of the patient. In pleurisy and most other serous inflammations 5 to 10 grains of Dover's powder usually conduce to sleep, mainly by relieving the pain. A hypodermic injection of morphine may be given with the same object in view. In bronchitis chloral and chloralamide are safe hypnotics, and as a rule opiates are to be avoided, as these depress the respiratory centre as I have pointed out. The sleeplessness of asthma is relieved by remedies that cut short an attack, such as chloral hydrate, the fumes of Himrod's and other asthmatic powders, the hypodermic injection of morphine, or in some cases a 5 to 10 gr. dose of citrate of caffeine. Bromides are also useful and so is paraldehyde, which both relieves the asthma and causes sleep. A change of locality, even to another part of the same town, often succeeds. In one case the removal of a student from Downing College, Cambridge, to a house across the street brought relief, and in another of my pupils the change from Caius College to a house in another part of the town brought to an end a most troublesome attack of asthma with its attendant sleeplessness.

The insomnia of heart disease is benefited by digitalis, strophanthus, strychnine, and other cardiac tonics; but in some cases it is necessary to resort to morphine, either by the mouth or, still better, hypodermically, as first suggested by my colleague, Professor Allbutt. Paraldehyde and chloralamide are most useful in my experience. Ice to the head is recommended by Morison, where the vital forces are not too low, or the temperature subnormal. It often produces sleep rapidly, with a more regular cardiac action. Heat may possibly answer in other cases presenting a subnormal temperature.

In chronic Bright's disease insomnia is occasionally very troublesome. Eliminants, such as aperients, should be tried, and if they do not succeed chloral hydrate may be given; the drug is safer in kidney than in heart disease, the reduction of blood pressure being usually beneficial than otherwise. Morphine and hyoscine hydrobromide subcutaneously injected have been recommended in obstinate cases; but their employment requires great caution. Erythrol tetranitrate, by reducing arterial tension, often acts as a charm even when sedatives have failed; and in one of my patients thorough rubbing of the skin by means of a flesh brush induced sleep, and very materially relieved the restlessness of this complaint.

In cases of neuralgia, locomotor ataxy, and so forth, some of the synthetic analgesics—phenazonum or phenacetin—are of

value. These drugs act also as hypnotics in cases where there is no pain, as I have previously stated. Calcium chloride is a valuable remedy in the insomnia due to pruritus. But when pain is the causal factor of insomnia morphine is the best general remedy, and this should be pushed until relief is obtained.

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A CASE OF OPHTHALMOPLÉGIA EXTERNA AND PARALYSIS OF BOTH FACIAL NERVES,

AND A CASE OF PARALYSIS OF BOTH FACIAL NERVES WITH SOME AFFECTION OF THE LIMBS, FROM PERIPHERAL NEURITIS; RECOVERY.

By H. SINIGAR, M.D., B.S.LOND.,

Assistant Medical Officer to the Marylebone Infirmary.

For permission to publish these cases I am indebted to Mr. John R. Lunn, Medical Superintendent of the infirmary. I have also to thank Dr. C. E. Beever for his valuable help and for the remarks he has been good enough to add to the report of the cases.

CASE I.—A man, aged 49, was admitted to the infirmary on January 20th, 1898, for loss of power in the hands and feet. He had been a painter until a year before admission, when he had to give up his employment on account of intemperance. He then became a crossing-sweeper. He had dropsy in the early part of 1897. He gave no history of lead colic or palsy and denied syphilis. Three weeks before admission he had what he called cold shivers and went almost blind (this apparently was due to inability to open his eyes). The shivers lasted about a week; he kept to his work, however, until a week before admission, when he became unable to hold his broom and walked with difficulty. No definite account of pain at the onset or of muscular tenderness was elicited.

On admission he was a well-nourished man, but looked older than his years. He could be roused to answer questions, but as a rule was very drowsy. His face was immobile and mask-like; the breathing was quiet and regular. There was double ptosis and complete paralysis of all the external muscles of the eyeball on each side, the eyes being fixed with the visual axes parallel. The pupils were small, the left a little larger than the right, both reacted to light and accommodation. In the left eye there was a corneal opacity and also old iritic adhesions. When his eyelids were lifted he could see fairly well. Ophthalmoscopically there was slight blurring of the nasal side of each disc, but there was no optic neuritis.

The natural lines of the face were obliterated, and the facial muscles were totally paralysed for both voluntary and emotional movements. The orbicularis oris and orbicularis palpebrarum were equally involved; the muscles of mastication were not affected; there was no blue line on the gums; the tongue could be protruded with some slight difficulty and was not tremulous; the soft palate, though not completely paralysed, did not move well on either side; speech was thick and somewhat nasal; swallowing was not easy, as fluids, if drunk quickly, were regurgitated through the nose. He had a very feeble cough, and the pharynx and larynx contained a frothy mucus which he appeared unable to cough up. There were no symptoms of paralysis of the vocal cords, but, unfortunately, the mucus in the pharynx prevented a good view of the larynx being obtained by the laryngoscope. The diaphragm and intercostals were working. The hand grasps on both sides were very feeble, but there was no wrist-drop or obvious paralysis of the muscles of the elbows and shoulders. In the legs the extensor muscles were weak, and there was slight foot drop. He could not stand steadily but could just walk when supported; the toes did not drag and there was no inco-ordination, his gait being simply that of a very feeble man. The knee-jerks and plantar reflexes were absent, nor could the triceps and wrist reflexes be obtained. There was no loss or alteration of tactile sensation. Hearing as tested by the watch was not good, but questions were heard readily. He had complete control over the bladder and rectum. The facial muscles gave no response to faradism, but the limb muscles reacted. There were no signs of organic disease in the viscera. He said he felt well in himself except that he was conscious of being weak.

His condition remained much the same until February 14th, when slight improvement was noticed; he was not so drowsy, and his general condition was better. By February 22nd improvement was very marked. He could then raise the eyelids (the right better than the left), and there was slight up and down movement in the eyes. On February 25th he could keep both eyes open, wrinkle his forehead and screw up the eyes. Vertical movements of the eyes were good, and the internal rectus muscle acted a little on each side. The palate moved better, but was still sluggish. Coughing was performed naturally and vigorously. The hand grasps were wonderfully stronger. The arm and leg muscles reacted well to faradism, while in the face there was slight reaction in the frontales, but no response in the orbicularis oris.

By March 10th all movements of the eyeballs could be performed, but not in a perfect manner. There was nystagmus on vertical and horizontal movements; there was no squint. The right eyebrow, right angle of the

mouth and right side of the soft palate—all moved better than the left; the knee-jerk, also, could just be obtained on the right side, but not on the left. He could raise himself in bed, and walk without difficulty. From this point steady improvement was maintained, until by June the facial muscles showed no signs of weakness, and the arms and legs recovered so well that he became a fairly powerful man. The only trace left was a very slight unsteadiness of the eyeballs on extreme lateral movement of the eyes. He left the infirmary in December, 1898.

CASE II.—W. C., a clerk, aged 48, was admitted on November 23rd, 1898, complaining of weakness of the legs. He had always enjoyed good health, and was an abstemious man and a non-smoker. He had gonorrhoea when about 22, but no history of syphilis could be obtained. On November 1st, 1898, he was seized, quite suddenly, with severe burning pain in the back which confined him to his bed. He was attended by a doctor, who diagnosed influenza. Exactly two weeks later he found on awaking in the morning that he was unable to get out of bed owing to weakness of the legs, which had come on during the night. The lower limbs, from the hips downwards, were almost useless. For the next three days he had severe burning pains and tenderness in the legs. The pains then began to lessen, but the weakness of the legs remained. For a fortnight before admission he had some difficulty in starting the act of micturition.

On admission, he was a healthy-looking, intelligent man. He could not move the legs well in bed and was unable to stand, although he said he was able to walk along the floor the day before admission, but could not get up or down stairs. The muscles of the legs were tender, the knee-jerks were absent, but there was no anaesthesia. He had pain in the back, and also some tenderness on percussion of the lower lumbar spines. There was no retention or incontinence of urine, but he complained of difficulty in starting the act of micturition (this difficulty we thought was due to his confinement to bed). He was put on 20-grain doses of iodide of potassium thrice daily.

On November 27th he complained of a running from the eyes and of being unable to see to read: the iodide was therefore stopped. He found that he had difficulty in mastication, while food showed a tendency to collect in his cheeks. His speech also was thick and rendered indistinct by clumsy action of the lips.

On November 29th he was obviously worse than on admission; there was marked suffusion of the eyes with lachrymation. His face had acquired a fixed expression, and the natural lines were totally obliterated. He lay on his back with his legs drawn up, and was restless and complained of constant aching pains in the loins. He had a troublesome cough with signs of congestion of the bases of the lungs. The eyes moved freely in all directions, but he was unable to close the lids; on attempting to do so the upper lids fell a little, and the eyes rolled up. The palpebral fissure was about a quarter of an inch wide on each side. He was unable to frown, smile, wrinkle the forehead, purse the lips, or move the angles of the mouth. The muscles of the jaw acted normally, and there was no paralysis of the tongue, soft palate, or muscles of the neck. The diaphragm descended freely with inspiration. There was no weakness of the arms and hands, but there was considerable loss of power in the lower limbs, with slight foot drop. He could flex and extend the knees feebly, but was unable to flex the thighs on the abdomen: adduction and abduction of the thighs were almost completely lost. All movements of the ankles and toes were very weak. The knee-jerks were absent on both sides, and there were no wrist-, elbow-, or jaw-jerks. The pupil and palate reflexes were active. He still had difficulty in commencing micturition. There was no anaesthesia or loss of muscle sense. Sight, apart from the dimness caused by lachrymation, was good, and there were no abnormal ophthalmoscopic appearances. Smell was unaffected. Taste on the tip and sides of the tongue was not quick or certain, on the back of the tongue it was good. Hearing of the voice was good but bone conduction was deficient. The muscles of the face, legs, and arms all responded to faradic stimulation.

On November 30th there was slight anaesthesia of the toes, the muscle sense of the right foot was very uncertain, and the rectus abdominis muscles were weak. No further changes took place until December 8th, when the patient became conscious of some return of power in the right side of the face. The angle of the mouth could be drawn up a little on the right side and the eyelids were not so widely open. He had no difficulty in micturition. Three days later he could close the eyes and retract both lips when told to show his teeth. The legs, however, were not obviously stronger. By December 15th his face had improved so much that there was only slight paresis on the left side. The legs were stronger and he could lift them off the bed. On December 30th the face had quite recovered, but the legs below the knees were appreciably wasted.

The electrical reactions on January 3rd, 1899, were as follows: The facial and arm muscles all responded vigorously to faradism, but the muscles of the right leg reacted much less readily than the left; the vastus internus reacted sluggishly on both sides. The application of the current gave him a great deal of pain. With galvanism a current which was only just strong enough to produce a contraction in the left leg gave a larger and quicker contraction in the right leg; KCC greater than ACC on both sides. On January 9th the right leg was weaker and more wasted than the left, and the soles of the feet were anaesthetic. He could stand and walk with difficulty and dragging of the toes.

After this improvement of the legs was slow, but was sufficient to permit of his discharge on January 28th, although he still complained of pains in the legs and there was also considerable muscular weakness and wasting.

REMARKS BY DR. BEEVOR.

Both of these cases are of great interest from the extent of the symptoms and the complete recovery. In the first case there was complete paralysis on both sides of the following cranial nerves—third (except the pupil), fourth, sixth, seventh, and incomplete affection of the eighth, eleventh, and twelfth. In the limbs the grasp was weak, there was slight dropping of both feet, and the knee-jerks were absent. Sensation and the action of the sphincters were normal. The affected muscles

reacted to faradism, with the exception of the face muscles, which did not react. In the second case, two weeks after the attack of severe pain in the back, which was diagnosed as influenza, there was almost complete loss of power in the lower limbs, with severe burning pain and tenderness three days later. On admission the knee-jerks were absent; there was difficulty in starting micturition, but there was no anaesthesia. A week after admission there was complete paralysis of both facial nerves; the upper limbs were normal, the lower limbs were almost paralysed, and there was some doubtful anaesthesia about the toes. The paralysis was followed by wasting, with diminished reaction to faradism.

The diagnosis of the seat of lesion was most important, as on it depended the prognosis. In the first case the distribution of the paralysis, and the fact that the whole of both sides of the face was paralysed not only to voluntary efforts but also to the emotional movements of laughing, and also that the reaction to faradism was lost, put the localisation either in the peripheral nerves or in the nuclei of these nerves, situated in the pons and medulla. In favour of the former place was the extensive weakness affecting all the four limbs, and the loss of the knee-jerk. It was exceedingly difficult in this case to be sure whether the case was a poliomyelitis affecting the motor cranial nuclei and the anterior cornual cells of the brachial and lumbar enlargements, or a neuritis involving the motor part only of the peripheral nerves, as there was no anaesthesia and no pain.

The mode of onset lasting three weeks was in favour of neuritis, while against it was the fact that complete ophthalmoplegia externa is usually due to a lesion of the ocular nuclei, and it is very unusual to have it as a symptom of multiple neuritis.

On the whole, the affection seemed more likely to be an affection of the peripheral nerves than of the grey matter. As to the cause, it seemed probable that alcoholic excess and exposure to cold were responsible for the neuritis, though there was not the foot and wrist drop, and the tenderness of the muscles which are so characteristic of alcoholic neuritis.

In the second case the diagnosis of neuritis was much more certain than in the former. The progressive mode of onset following on an acute illness diagnosed as influenza, and the pain and tenderness in the limbs were in favour of neuritis. There was complete paralysis of all the muscles supplied by both the facial nerves—including the orbicularis palpebrarum and orbicularis oris—but without any paralysis of the ocular muscles or of the tongue. Now this complete paralysis of all the face muscles, without the muscles of the eyes and of the tongue, was in favour of a lesion of the peripheral nerves, for it is now considered highly probable that the nerve supply of the orbicularis palpebrarum comes to the facial nerve, not from the facial nucleus but from the third nucleus, and the supply of the orbicularis oris comes to the facial nerve from the hypoglossal nucleus, so that, if the paralysis were due to the disease in the nuclei, the ocular movements and those of the tongue should also have been involved, but they were not. (In the first case this test could not be used, as the ocular muscles were completely paralysed, and those of the tongue were partially affected, a condition which might be due to the nerves involved or to their nuclei). The burning pain and tenderness in the legs with loss of the knee-jerks, and the slight anaesthesia in the toes were also in favour of neuritis, as was also the difficulty of extending the toes and dorsoflexing the ankles. As to the cause it seems probable that the attack he had was influenza, and the subsequent symptoms were those of neuritis following influenza.

In the first case the diagnosis of neuritis was not quite certain; in the second case it was definite, but in both cases it was sufficient to warrant a favourable prognosis, to the effect that, if no more muscles were affected, and especially if the diaphragm and intercostals were not involved, the patients would recover, and this proved correct.

SIR JAMES CRICHTON BROWNE will give the introductory address at Owens College, Manchester, on October 2nd.

MEMORIAL TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.—In reply to numerous inquiries the Honorary Secretary to the Society of Members of the Royal College of Surgeons begs to state that a copy of this memorial will lie for signature at 11, Adam Street, Strand.