Fomentations and warm baths are valuable adjuncts; they soothe pain, relax spasm, and, by diminishing suffering, save power.

Of all the remedies at our command, *enemas* in conjunction with opium, are perhaps the most essential, and, where the obstruction is not invincible, contribute more than any others to bring about a happy termination. Enemas, composed of bland fluids, should be injected twice in the day, to the fullest extent the bowel will receive, by the aid of O'Beirne's colon tube, a most valuable instrument in these cases.

Among the other remedies employed as a last resource are *tobacco, fluid mercury, the cold douche, and galvanism*; the two last said to be successful occasionally. But mercury is of no use as far as I have seen, and is otherwise open to great objection. Tobacco is a valuable, because often a successful, remedy; but on account of its poisonous properties it is administered only in the form of enema, the infusion for which, on the score of safety, should not be stronger than fifteen grains to a few ounces of boiling water.

Strychnia may deserve notice, and has been given in one case, in the dose of 1-16th of a grain dissolved in distilled vinegar, with remarkable success.

I have now brought to a close a subject of deep interest, treated with prolixity I fear, but not exhausted. Seldom is the medical practitioner placed in a more distressing situation than when attending a case of obstruction he finds his resources exhausted, but the obstacle not overcome. Surrounded by anxious relatives, tormented with suggestions by obtrusive friends, he has to watch, through many long hours, sufferings which he cannot relieve, and at the last to witness a death he cannot avert. Fortunate shall I esteem myself if the consideration given to this subject, and the practical opinions elicited from this assembly, should fortify our resources, and qualify us to treat with better success these formidable obstructions of the intestinal canal.

Bath, March 26, 1851.

CASES OF AFFECTIONS OF THE NERVES

DISTRIBUTED TO THE

EYE AND ITS APPENDAGES.

By AUGUSTIN PRICHARD, Esq.

Read at the Quarterly Meeting of the Bath and Bristol Branch, March, 1851.

AFFECTIONS OF THE CRANIAL NERVES, ESPECIALLY THOSE DISTRIBUTED TO THE EYE AND ITS AP- PENDAGES.

THE following cases of paralysis and spasmodic affections of the nerves of the orbit are selected from many which have fallen under my notice, not so much for the purpose of showing the results of treatment

when it was adopted, as to illustrate the functions of the particular nerves. I take the nerves in their numerical order, as they are known to all, and with one or two exceptions have omitted a detail of the cases which are most commonly noticed.

Loss of function in the optic nerve, (or 2nd pair,) is unfortunately sufficiently common, producing amaurosis in its various degrees; I have therefore included in the present report none of the ordinary instances of this disease. The following case was one of complete blindness from amaurosis occurring many years ago, having been under my father's care in the Infirmary here, and I extract this report from my notes made at the time.*

Case 1.—A young man, a painter by trade, and 18 years of age, was admitted in a state of total blindness. He was seized with a fit a few days before, and lost his sight from that time. He was accustomed to work a great deal in oil and lead paints, and at the time of his seizure was suffering from the effects of mercury, administered for the cure of syphilis. He remained in the wards of the infirmary for nearly nine months, and was then dismissed with his sight completely restored. During the whole of his stay he was treated upon one plan, and with the greatest activity and perseverance. The sight began to improve after he had been about a month under treatment. The following abstract of the treatment will give an idea of the extent to which it was considered necessary to push the antiphlogistic plan, and the result obviously justified it:—He had, at intervals, no less than twenty dozen leeches applied to the head; he was bled from the arm five times, and on one occasion till syncope occurred; he was bled once from the temporal artery; he had blisters to his scalp; a long issue was made about a week after his admission, and after a time a seton was made in the back of his neck; he was, moreover, during the greater part of the time, taking active purgative doses, and for a short time he took the decoction of sarsaparilla with the iodide of potassium. His mouth was also affected with mercury soon after he was admitted.

In drawing attention to this as one of the very few cases of complete amaurosis that are cured, I must express my belief and fear that the patient, if he was treated now, would have so much less chance of recovery, as the treatment would be, in all probability, less active and decided.

Case 2.—Sarah Merchant, aged 21, admitted June 20th, 1849.† Has had an affection of the right eye for two years, which gives rise to considerable inconvenience. She sees nothing with the outer half of the right eye,—that is to say, when the left eye is closed, she sees only that half of an object directly before her which is towards her right hand.

This was a well marked instance of partial amaurosis,

* I have found, since I transcribed this case from my notes, that it was alluded to by my father in a paper "On Cerebral Diseases and their Treatment," read before the Medical Section of the British Association.

† This and the following cases were admitted at the "Bristol Dispensary for the cure of complaints in the eyes."

cases of which are met with in all forms, where patients see only the upper or lower halves of objects, as well as only the right or left sides. In this patient, as in most of these, treatment was of no avail.

Case 3.—Ann Rogers, aged 21, admitted November 29th, 1846. She states that she has had headache for a considerable time, and that suddenly about three weeks before her admission the upper lid of the right eye drooped completely. She has complete ptosis, or drooping of the upper lid, and inability to raise it at all, external strabismus, fixed and dilated pupil, indistinctness of vision with this eye, and double vision when both are open. This is, therefore, a clear case of paralysis of both branches of the third nerve or the motor oculi, with every symptom present that we should expect to see, knowing the distribution of the nerve, and without any additional symptom to render the case indistinct. She was treated with purgatives, and blisters to the temples for a time, and afterwards with the tartar emetic ointment over the brow, with turpentine internally. She continued this plan for a time, and by the middle of January was perfectly restored.

Case 4.—Joseph Gay, a miller, admitted June 26th, 1850. Has complained of loss of sight for ten days. He has tic in the face, or a painful condition of the surface, while sensation is perfect; he has partial paralysis of the muscles of one side of the face, slight external strabismus, with a fixed and dilated pupil, and no sight whatever in his right eye. He was treated at first with purgatives, and when he was seen after a fortnight's interval he was no better, but he had an additional symptom, namely, his tongue was protruded towards the left side. He was blistered about the brow and temples, and had mercurial purgatives. He was seen again a fortnight afterwards, and his sight was much improved; the pupil acted, and his other symptoms were relieved. The same treatment was pursued, and he recovered.

This is a complex case, and we must conclude, that from some congestion in the head he had complete paralysis of the second or optic nerve of the right side, and partial paralysis of the seventh (*portia dura*) and third (motor oculi) of the same side, with a similar condition of the ninth or hypoglossal of the left. He had, moreover, some irritation about the fifth, giving rise to the tic. The result of this case was most satisfactory.

Case 5.—A man was admitted into the infirmary some time ago with paralysis in the legs and bladder, with partial paralysis of the arms. The left pupil was somewhat more dilated than the right, although the sight was good; the levator palpebræ superioris, superior and internal recti, very much impeded in their power. He had complete power of eversion of the eye.

This is an instance of paralysis of many of the motor nerves where the symptoms are more marked, the further the organ is removed from the brain, as is so commonly the case. The nerve of the orbit that was affected was of course the third. Nothing in the way of successful treatment was effected.

Case 6.—A patient came over from Newport about two years ago with the following history:—Two days ago he discovered when he got up in the morning, having been very drunk the night before, that his sight was very much affected. He can see clearly with each eye, but with both together he can scarcely see at all. When he looks towards the left he sees double. The right eye is the one affected, and the pupil on this side is very much more contracted than on the other. There is a continued slight rotation of the ball of the eye in the socket, and the globe is rolled upwards and outwards. When he directs his eyes forwards, there is no distinct strabismus. His sight chiefly puzzles him in walking, for he is unable to judge of the evenness of the surface on which he is stepping. After a few days of active purging he became much better, and returned home.

This case is one of great interest, and the only one of the kind I have ever met with. The actual condition was one of over-excitement and action of a part of the third nerve, the great peculiarity being that it was only a portion of the *lower* branch which was thus affected, namely, the long branch distributed to the inferior oblique muscle of the eye, and the short root (as it is called,) of the lenticular ganglion, the former being proved by the rotation and position of the eye, and the latter by the contracted condition of the pupil. No other functions of the eye or its muscles seemed in any way altered. The actual *rotation* of the globe of the eye, without doubt, gave rise to his staggering gait, and his inability to walk, except as a drunken man walks. It is also particularly worthy of notice, that this patient's eye was exactly in the same condition as that of a healthy person when asleep, viz., the eye was turned upwards and outwards by the inferior oblique muscle, and the pupil was contracted.

Case 7.—Elizabeth Cole, aged 33, was admitted on the 11th of April, 1849. She can move both her eyes freely in every direction, with the exception that she is unable to evert the right eye. She sees double when she looks towards the right, but not otherwise. The pupil is active, the sight not quite so good as in the other. She was purged, and blistered upon the brow and temple for three weeks, at the end of which time she was much improved, in fact the improvement had been gradual from within a very short time after the beginning of the treatment. She could then move the eye well in every direction, but the sight, although better, was not quite so good as it used to be.

This is a simple instance of paralysis of the sixth or abducens nerve of the right side, with no other affection whatever of the motor nerves of the eye.

Case 8.—Emily Howell, aged 6, an apparently healthy and well-grown child, was admitted on the 18th of April, 1847. She had had slight internal strabismus of the right eye for a week, and upon an investigation it appeared that the only defect was an inability to evert the right eye. The sight was good, the pupil active and in a natural state, and all the movements of the

eyes and lids were perfect, except that of the external rectus of the right side.

Some purgative medicine was ordered, and when she was seen after an interval of only three days, the muscles of the right side of the face were all paralysed; the child was also giddy, but the sight was good. A blister was applied behind the ear, and some mercurial purgatives were given. She continued much in this state for three weeks, when she was seen again, and the only change noticed by her father was that she was stupid, and that her temper had become very bad, and that she occasionally tottered when she walked. A blister was applied to the scalp. A fortnight after, the paralytic symptoms were much the same, but she was falling away, and she was at times very violent, in fact almost maniacal. Some tartar emetic ointment was directed to be rubbed upon the head, by which means a suppurating surface was established, and considerable discharge escaped from it.

She became gradually worse, but lingered on until the 12th of September, about five months after the first symptom. About six weeks before her death her speech became obscure, and the left arm and leg became paralysed, whilst the right arm was thrown spasmodically about. She lost the sensation of the right side of the face, and flies crawled across her open eye without the slightest indication of her feeling it, and without the least reflex action. She could swallow to the last, but two days before she could not move her tongue at all, and she could not suck for a short time before her death. Her faculties were unaffected until about the last week of her life, when the memory became defective, and her father stated that she lost the power of saying her prayers as she used to do, forgetting line by line daily.

Here the disease first of all attacked the sixth nerve of the right side, and spreading backwards speedily involved the seventh; it was then apparently arrested for a time, and afterwards the fifth of the same side was paralysed, and ultimately the ninth. The eighth seemed to have escaped, and the disease never advanced sufficiently forwards to destroy the action of the fourth and third nerves. The diagnosis was tolerably easy—viz., some growth pressing upon the roots of the nerves in question, and such it proved to be.

Post-mortem examination.—The membranes of the brain were healthy. Upon taking out the brain from its situation the pons varolii was found to be softened and broken down, and the usual transverse fibres not at all distinctly seen. The greater part of the right side of the pons varolii was occupied by a hard rounded tubercular tumour of the size of a chesnut. The surrounding cerebral tissue was very much softened, and so was in fact, also, the whole of the interior of the right hemisphere of the brain. The edge of the cerebellum was softened, and at the points where the fifth, sixth, seventh, and eighth nerves arise, the substance of the brain was reduced to a mere pulp. There were no signs of vascularity around the softened parts or around the tumour.

Case 9.—Sarah Hedges, aged 34, came first upon the

21st of March, 1849. She had been thrown out of a cart two months before and struck the left side of her head, producing concussion and other dangerous symptoms of cerebral injury. Her condition had become chronic when I first saw her, and the following were her symptoms:—She had complete inability to close the left eye, with epiphora or watery eye, depending upon the paralysis of the orbicularis palpebrarum, and perfect immobility of the left side of the face. She had internal strabismus of this eye, with power of moving the organ in every direction, except outwards; she had numbness and want of sensation over the entire left side of the face, with a want of power of tasting with a corresponding half of her tongue; she had great difficulty in masticating her food, and found it necessary to remove it from between her cheek and her teeth with the finger. She did not taste until the food got back into her pharynx, and she had great difficulty in swallowing. The power of sensation on the side of the face was gradually improving; she could feel if I touched the eyelashes with a pen, but it produced no reflex action of winking.

In this interesting case there had doubtless been injury at the base of the brain, either effusion of blood producing a clot, which was gradually being absorbed, or a fracture across the apex of the petrous portion of the temporal bone, most likely lacerating the tentorium, and thus producing paralysis of the fifth, sixth, seventh, and eighth nerves of the left side, whilst the ninth and third were entirely unaffected. The effects of the injury were thus as completely local as it is possible for a severe injury of the base of the skull to be.

No treatment was adopted, as she was gradually improving, and only two months had elapsed since the accident.

Case 10.—Richard Long, aged 45 years, applied for advice, as he was suffering from a constant discharge of tears from the left eye. He states that fifteen years ago he underwent an operation for the removal of a tumour upon the side of the face, in the Bristol Infirmary. The operation was performed by the late Mr. Richard Smith. He has ever since been unable to close the eye of this side. His forehead upon this side is quite motionless when he speaks or alters the expression of his face, and the brow has fallen down over the eye, so as to present a remarkable contrast to the other side. He has a vertical scar upon the upper part of the left cheek, over the zygomatic process of the malar bone, running down to a point opposite to and in front of the lower edge of the ear.

Here, without doubt, the upper branches of the portia dura of the seventh nerve, or the facial, were divided in the section made to remove the tumour, showing the necessity of attending to the direction of an incision in reference to the anatomical position of the parts, for if this cut had been made parallel to the course of the nerve in question, no such unpleasant result could have occurred. The watery condition of the eye is the necessary result of the constant exposure of the conjunctiva to the air, but it was long before it

was developed in this case. The condition was of course incurable, but he was somewhat relieved by applications given to him to remove the inflammation of the exposed membrane.

Case 11.—Susan Lutton, aged 39, applied on the 3rd of November, 1847. She has suffered from her present complaint for five months, becoming gradually worse and worse from the commencement. Whenever she speaks, in fact continually, there is a sudden and powerful spasmodic contraction of all the muscles of the left side of the face; her eye is closed and the corner of the mouth is drawn upwards. She assigns no cause to her present condition, but it is extremely distressing to her. She was blistered behind the left ear, and took some purgative doses, but a week afterwards was no better. The tartar emetic ointment was then rubbed in behind the ear, and under this treatment combined with cathartic medicine, she completely recovered.

Case 12.—Wm. Rogers was under my care three years ago, having the left side of the face drawn up and contracted, and wrinkled. He says it feels as if the skin was not large enough. The lids were much corrugated, and the orbicularis palpebrarum was evidently continually acting. He has no strabismus when the eye is opened, its movements are perfect, but the sight is a little dim. He is deaf in this ear. He was blistered behind the ear, and was well purged. His hearing returned soon after the application of the blister. After pursuing this plan of treatment for a time with some slight improvement, he was given turpentine to take internally, in drachm doses twice a day. Under the effect of this remedy he speedily improved, and about six weeks after his first admission the twitching had entirely ceased and his hearing was perfect; he felt a little giddy but was otherwise quite well.

These two last cases are examples of spasmodic affection of the portia dura of the seventh nerve, accompanied in the latter instance with paralysis of the portio mollis, equally temporary. These cases are not very common. The treatment was followed by a very favourable result, from their having been seen early in the progress of the disorder.

The last case is one of general paralysis of the cranial nerves, and is transcribed from my notes taken whilst attending the Surgical Clinique at the Charité at Berlin.

Case 13.—A middle-aged man was admitted under Professor Jüngken, in the following condition:—He had a large nodulated swelling behind each ear, which appeared like an enlargement of some of the superficial cervical glands. He had ptosis or drooping of the right upper eyelid, which he was unable to raise at all, although he was able to close the eye more firmly. The globe of the eye was also immovable and the pupil dilated and fixed. The tongue, when thrust out of the mouth, had its point directed to the right side. The sensation was lost over the right half of the face and

tongue. A short time after his admission he became worse, and was unable to see, hear, or smell with the organs of sense on the right side, nor could he feel in the right nostril; the left eye had also become immovable with a slight degree of ptosis. An issue was ordered to be made in the scalp, to be dressed with twelve peas, and purgative injections were given. He died about a week afterwards.

Post-mortem.—There was fungus hæmatodes of the glands of the neck, extending downwards to the shoulder and upwards into the pterygoid fossa, through the right foramen ovale and rotundum of the sphenoid bone into the cavernous sinus, destroying the third and other nerves, back to the sixth in this space, and partially affecting all the other nerves of the same side. On the left side the same condition existed but in a much less degree, the third being the only nerve here materially injured by the disease. The symptoms were thus all most fully accounted for by the *post-mortem* investigation.

According to the experience which I have had of cases of this nature, the order of frequency with which paralysis affects the nerves I have been alluding to, is the following. The third is most often affected, then the seventh, after these the sixth and ninth. The fifth and eighth are very seldom paralysed, and are in fact, from their deep-seated position, out of the way of cold and other accidental causes.

The anatomical relations of the third, sixth, and seventh appear to me to explain the frequency of paralysis. The two former, as is well known, enter the orbit from the cavernous sinus through the same aperture (the sphenoidal fissure) as that through which the ophthalmic veins carried back into the same sinus, take blood from the eye and its surrounding tissues. Any cause, therefore, which can produce fulness of the head, or any impediment to the return of venous blood from the brain, will produce congestion in the orbit, and is likely also to produce pressure on the third and sixth nerves. This idea is strengthened by the result of treatment, for if leeches and blisters are applied to the brow and temple in these cases, they will generally recover, when seen tolerably early after the onset of the disease. I believe that neuralgic headache, or pain in the course of the supra-orbital nerve is frequently induced in an exactly similar way.

With regard to the seventh nerve, it has to travel through a narrow and tortuous bony canal, ending at the stylo-mastoid opening, in company with a little artery which enters at the point where the nerve leaves the cranium. Here again, any increased vascularity or any cause (as cold), producing rheumatic or other inflammation of the fibrous sheath of the nerve, gives rise to swelling, and in consequence, firm pressure upon the trunk of the nerve, and paralysis. Here again, treatment by leeching and blistering freely behind the ear will generally cure the disease.

The only other remark with which I will detain the Society, will be made for the purpose of drawing your attention to the use of turpentine internally in chronic paralytic affections. We can understand and admit its

utility in rheumatic diseases, and many of these cases of local paralysis are probably due to an inflammation, (either gouty, rheumatic, or syphilitic,) of the fibrous sheath of the nerves. We see the great advantage of this remedy in promoting absorption of solid effused matter in cases of iritis, and why should it not have the same power upon organs and similar tissues that are out of sight? I am convinced that it has frequently cured cases under my care when other modes proved to be inefficient, and of this I have brought forward one or two examples this evening, but, as I before stated, these cases were not intended to illustrate any special mode of treatment, or any peculiar success in treatment, but I have brought them before the Society for the same reason as that for which I collected them, viz., to illustrate some of these interesting points in the physiology of the nerves.

ON THE
RIGHT MANAGEMENT OF WOMEN,
AT FIRST MENSTRUATION,
AND DURING THE PERSISTENCE OF THAT FUNCTION.

By E. J. TILT, M.D.,

*Senior-Physician to the Paddington Free Dispensary, and Physician to the
Farringdon General Dispensary and Lying-in Charity.*

It has been shown, in a preceding paper, by what means the female organism may be best disposed to favour the first establishment of that important function which marks the advent of womanhood, and it might appear that when once this function has begun, the same careful vigilance of a mother, and of a medical adviser, is no longer required, nature being safely to be trusted with the rest. If this be true to a great extent with respect to those women whose constitutions are hardened by privations and the constant habit of exercise in the open air, it cannot apply to the management of those who are brought up in the midst of comforts or affluence, and in whom the emotional susceptibilities are often developed in direct proportion to the weakened energies of the body. It must also be remembered, that there are great differences in the mode of its first appearance, for if we attend to what happens to those in whom this function has been most healthily performed, we find that, at first, the flow of little amount, acquires by degrees a quantity, quality, and a length of duration, which becomes the critical measure of health in each individual case. It is, therefore, not unreasonable to suppose that this would always occur if nature had fair play, but while the performance of the function is impending, many exciting causes may intervene to determine an appearance before its appointed time, and that in an unusual manner. Sometimes I have known it to occur from a fall, or after an extraordinarily long walk. Thus a girl, 12 years of age, fell into a saw pit, and was surprised, on rising, to find herself bathed in blood; she washed in cold water, checked the flow, and was laid up with violent pains in the head and limbs for thirteen weeks, and

did not recover her health until menstruation returned regularly, a year after its accidental appearance. Sometimes a fright, or a violent emotion, brings it on suddenly, and, as far as my experience goes, in all such cases the function is inaugurated by an amount of discharge which deserves the name of initiatory flooding. In 30 per cent., I have found this function begin by a very considerable flow; in 8 per cent. it amounted to a flooding, and lasted from eight to ten days. These facts are interesting because they are not in accordance with the general belief, and because they are suggestive of useful advice necessary for a mother, who ought to be warned of the possibility of this accident, in order that by her own frightened demeanour, and that of inexperienced attendants, the girl may not be alarmed at the occurrence. Duly forewarned, a mother will not only maintain her own composure and impart it to those around her, but she will be able to assure her daughter that nothing but what is usual has happened, and she should be informed that while waiting for professional advice, she is to keep her daughter in the horizontal position, with scanty covering, in a cool, well-ventilated apartment. Such means, with the addition, in some cases, of acidulated drinks, will effectually check any excessive discharge; but should the flooding assume an alarming extent, nauseating doses of antimony should be given, and it may be even necessary to have recourse to the local application of ice.

Case.—A young lady, aged 16, of middle stature, slender make, with brown hair and grey eyes, had been brought up in town, and the accomplishments of her education had been much more attended to than the measures which might invigorate a delicate constitution. At times she had suffered very much from headache, with giddiness and vertigo, and after having taken a much longer walk than usual she became unwell. The flow was abundant from the first, and it was allowed to continue until repeated fainting fits so alarmed the family, that on the fourth day the medical attendant was sent for. He judiciously adopted the measures previously recommended, and gave two grains of acetate of lead every two hours; that having no effect, he administered ten grains of the powdered ergot of rye every hour. Three doses had produced no favourable result, when I was sent for, the patient was cold and fainting, the pulse tremulous, and the heart's action feeble. In such a state there was no time to be wasted, so after reviving her with hartshorn, I made her swallow a table spoonful of brandy, and applied to the lower part of the abdomen a bladder half full of powdered ice, ordering large mustard poultices to be kept constantly applied to some part of the limbs; the flooding gradually stopped. The patient menstruated regularly during the following months, but she was long before recovering her usual strength, and is even now subject to profuse menstruation, which, if not attended to, will eventually undermine her constitution.

In a similar case, should ice fail, it would be necessary to have recourse to surgical measures to stop the flow, but such measures should not be resorted to until the patient's fully-acquired conviction of impending danger