or cured by surgical interference. I cannot but believe that certain cases characterised by coma, delirium, and acute mania, produced by a congested and dropsical condition of the brain, or by meningitis, and in which there is a distinct tendency towards death, might be benefited by relief of pressure by puncture of the dura mater. It must be borne in mind that congestion and dilatation of the cerebral arteries and veins produces obstruction of the perivascular lymphatics in the same manner as the conditions already spoken of act. The mere dilatation occludes them partially, and the rapid accumulation of leucocytes outside the vessels helps to maintain and increase the obstruction. In the large majority of such cases death ensues from accumulation of fluid, and we are compelled to sit helpless and hopeless in their presence. One is warranted in asking, Are our resources of treatment exhausted? Death, we believe, results from intracranial pressure, which lowers and destroys the functional activity of the brain. If we relieve this pressure there would certainly be hope, founded on the reasons already advanced, that reparative processes might ensue on removing, by gradual draining, cerebro-spinal fluid from the vertex. I am not at present prepared to say whether it would be possible to tap the cerebello-medullary cistern in cases of basilar meningitis; but it really matters not whence the relief is obtained so long as the fluid is removed, for in such cases, inflammation not having existed for such a length of time as to cause blocking of the conduits in the meninges by organised material, and these remaining patent, free communication exists between all parts of the encephale. When we produce the analogies of the immediate good results of lifting bone which has been depressed for even long periods, and of the removal of tumours from the brain, why should we shun the displacement of a material which we know to be almost, if not quite, as potential in the production of death, or, of what is worse, hopeless insanity, simply because it is water? The procedure is simpler in the case of the diffused watery tumour than in that of the solid growth, and can be adopted without complicating existing conditions.

I cannot conclude this paper without insisting on the following points: (1) The necessity of keeping in view the vast influence exercised by the lymphatic system of the encephale in morbid processes. The implication of the lymphatics is a great and immediate cause of many cerebral symptoms, is easily produced, and is easily relieved. If not the prime, it is a very early, factor in the production of the phenomena of many forms of insanity, being the immediate sequence of vascular changes. It is curious to remark how traditional mistakes as to the anatomy of the cerebral lymphatic system have been handed down from one textbook to another; for example, in Quain's *Anatomy* we find the arachnoid described as a separate membrane, and the pia mater as a double membrane dipping as such into all the sulci. The simple fact is that the pia mater is a double membrane, the outer or parietal layer of which (the so-called arachnoid) bridges the sulci, and the inner only dipping into them, sending off lymph channels round each vessel, through which it receives the lymph into its spaces on the surface of the brain, transmitting it to the cisterns at the base, and by the Pacchionian villi to the subdural space, and the superior longitudinal sinus. It bears close analogies to the pleura and peritoneum. The whole subject is simplified if we speak of two membranes only, the dura and the pia mater; and of two lymph spaces, the subdural and the piamatral. Nomenclature would be simplified, and the general appreciation of the lymphatic system of the encephale made easy.⁴ (2) I would deprecate the theory that morbid processes going on in the brain are to be regarded as being conducted under materially different conditions from those acting in other parts of the body; and (3) I would ask, that being the case, Why not apply the same systems of treatment?

THE SURGICAL TREATMENT OF GENERAL PARALYSIS.

By R. PERCY SMITH, M.D.,

Medical Superintendent of Bethlem Royal Hospital.

It has been a matter of surprise to me that no superintendent of an asylum or physician in lunacy practice of sufficiently long

experience, and whose opinions would have great weight, should have ventured to criticise Dr. Claye Shaw's report of a case of general paralysis treated by trephining, published in the *JOURNAL* of November 16th. I feel certain that there must be very few men in such posts who have read Dr. Claye Shaw's report of his case but must have felt that the whole bearing of the case was not stated with sufficient completeness.

In the minds of those unfamiliar with the disease, it seems to me that, from the report of the case, the impression might be produced that it was rather a new thing for a case of general paralysis to be discharged "recovered" from an asylum or hospital; but surely it is well recognised that such cases frequently show marked improvement, for a time at least, and that they may have to be discharged "recovered" because there are not sufficient symptoms to warrant their legal detention, though the physician under whose care they have been may have the strongest feeling in his own mind that they will eventually relapse and end fatally. This course has had not infrequently to be resorted to at Bethlem, and I give here, very briefly, a few instances.

CASE I.—A. K., aged 41, was admitted July 5th, 1884. For two months he had had pain in the head, and had become extravagant and intemperate. On admission he was full of exalted delusions of strength, wealth, and powers of all sorts; he wrote misspelt, untidy letters with tremulous hand, his knee-jerks were absent, his gait somewhat ataxic, his pupils minute and not acting to light, his speech and tongue tremulous. He was considered to be an ataxic general paralytic. During the next twelve months his mental symptoms improved so much that he was discharged "recovered" in September, 1885. There remained, however, tremor of lips and tongue, the pupils and knee-jerks were as before, and, of course, the case was not for a moment looked upon as a cure of general paralysis. Nothing has, however, been heard of him since, and he may have died.

CASE II.—W. H. S. M., aged 34, captain of a telegraph ship, admitted July 6th, 1885. History of syphilis. Depression for five months, then, on admission, extravagant, exalted, excited, with unequal pupils, exaggerated knee-jerks, tremor of lips, tongue and cheeks, and speech trouble; but in March, 1886, having lost his excitement and delusions, and in great part his abnormal physical signs, he was sent on leave of absence, and eventually discharged "recovered." This case was thought to be one of general paralysis, but he was able to resume work, and for nearly eighteen months he acted as chief mate of a steamer in the East Indies, remaining apparently in good health, but, from being an irritable man, he had become easy-going, and he was noticed to sleep too much. He, however, was able to perform the complicated and important duties of chief officer without any accident. In June, 1888, his wife brought him up to the hospital; he was then losing power, was thin, and had marked tremor of the lips and tongue, bladder weakness, and commencing dementia. He was readmitted, and died in the hospital.

CASE III.—G. S. R., aged 34, a clergyman, admitted October 16th, 1886. Had suffered from syphilis in youth. Had had an unusually brilliant university and athletic career. From July, 1885, he had been sleepless, and had had two or three attacks of what was described as "coma." He had lost memory and nerve power, and had occasional excitement. On admission he had tremor of tongue and lips, unequal pupils, blurred and difficult speech, exaggerated knee-jerks, loss of memory, and much mental confusion and delusion that he was watched. There was considered to be no doubt as to his having early general paralysis. By the end of December, however, there was great mental and some physical improvement, and in March, 1887, he was discharged "recovered." Subsequently a letter from his father announced his "complete recovery," that his "delusions have entirely left him." He resumed clerical duty, and went on a continental tour, doing chaplain's work, and during this period his relations considered him perfectly well. In July of the same year, however, he suddenly became furiously maniacal, with intense exaltation, eroticism, and obscenity, and with marked physical signs again. He was brought over to England with great difficulty, was readmitted to Bethlem, and, after some weeks of great excitement, he died in a series of convulsive seizures.

CASE IV.—J. S., aged 46, a post-office official, admitted November 14th, 1884. For some time he had been restless, "odd," sleepless, had become intemperate, and then violent and threatening. On admission he was the "world's provider," a great orator, thought he had unlimited wealth, wrote to the Queen and Prince of Wales, and was constantly writing letters. His speech was

⁴ The existence of a third, the epicerebral lymph space of His, is more than doubtful.

thick, pupils unequal, tongue tremulous; there was loss of smell for pepper, and defective memory. After some months of this condition he became quieter, and appeared to be getting weak minded, and then in May, 1885, he was seized with a series of convulsive seizures affecting principally his left side, and leaving a temporary paralysis and anesthesia, and attended with a rise of temperature to 104° F. There was considered to be no doubt as to the nature of the case, he having had all one could want to make a diagnosis of general paralysis. The sequel is, however, interesting. From the time when he had these seizures, he has had no more symptoms. He had to be discharged "recovered" after an interval, and understanding that he probably had a progressive disease, and that the outside world would probably be too great a strain for him, he decided to remain here as a voluntary boarder, so he is still under observation. He is perfectly intelligent, has no loss of memory, manages his own affairs, and has no affection of speech, lips, or tongue, or other physical signs of general paralysis.

This case may, with some probability, be looked upon as a cure, but the patient being still under observation the details have not yet been published, there being, of course, the chance of the condition being merely a long remission. Mickle¹ quotes many recorded instances of long periods of remission and of real or supposed recovery, and gives some of his own cases. He adds: "It is noteworthy that several of the above-mentioned instances of recovery or of very prolonged remission have supervened on accidents, violent injuries or diseases of such a kind as to produce so-called 'revulsive effects.'"

In face of these facts I do not feel disposed to admit Dr. Claye Shaw's claim that "the operation has been justified by success." By his own admission the patient still has prominent bulbar symptoms in contrast to some of the cases I have given above, and I doubt whether the trephining has had more to do with the relief of the other symptoms than any other injury might have had.

It is surprising to me that Dr. Claye Shaw should not have referred to the fact of remissions occurring thus in general paralysis; this, I think, is a most important omission. Nothing is said as to the presence or absence of a history of syphilis.

Everyone must admire the boldness Dr. Claye Shaw has shown in resorting to trephining in an attempt to arrest this terrible disease, in which the physician, as a rule, stands powerless to do anything but guide the patient as gently as possible to the almost inevitable fatal termination, but I think few will care to resort to it from reading the case as it stands at present.

I have not touched on Dr. Claye Shaw's view of the pathology of the case, which has been discussed by Dr. Revington in your issue of November 23rd. I have failed to find in Dr. Claye Shaw's paper the expression "fluid in the convolutions," which Dr. Revington states is there, and I think it is a matter of regret that the latter should have used the expression "mechanical nonsense" in his criticism. With the exception, however, of these points, and the remark that I do not think it a universal custom to incise freely simply cedematous subcutaneous tissue, I agree with his letter.

Everyone will anxiously await for a further history of this case, which I hope will not be lost sight of. Though the patient may not be insane at present, I think there is little doubt he is merely in a period of remission, and that he will not remain long out of an asylum.

AMPUTATION AT THE HIP-JOINT, WITH THE SKEWER METHOD OF SECURING THE VESSELS.

By ROBERT JOHN GARDEN, M.D.,

Surgeon, Aberdeen Royal Infirmary and Sick Children's Hospital; Lecturer on Clinical Surgery and Dermatology, Aberdeen University.

I HAVE read with interest the account in the JOURNAL of November 9th by Mr. Thomas Myles of a proposed new method of performing amputation at the hip-joint. The following notes of a case in which I performed this operation will show that the method adopted by me was almost the same as that proposed by Mr. Myles.

A. A., aged 21. Leg began to give trouble in June, 1887, pain being referred both to the hip-joint and the knee. The pain increasing, patient, who was a marine, was sent to Portsmouth Hospital, and was treated for sciatica. Morbus coxae being diagnosed, a stiff bandage was applied for six weeks, followed by a ten-pound weight extension for three months. In July, 1888, he was invalided, came to Aberdeen, and was admitted into the Royal Infirmary. Extension was tried. A Thomas's splint was applied afterwards, and the patient was allowed to go home. In the beginning of 1889 an abscess formed and burst on the inner side of the thigh, and he was readmitted to the infirmary in February. For a time he did well, but towards the end of March his temperature, which had been about normal, suddenly rose to 102° F., and continued hectic. On April 18th a large abscess in anterior aspect of the thigh was opened from end to end. This was not followed by any marked improvement, and about the beginning of May patient expressed a wish that something radical should be done. It was resolved, considering his age and the extent of the disease, to remove the limb at the hip-joint, and on May 28th this was done.

Since the unhealed wound which remained after the operation for opening the abscess in April would have been in the centre of an anterior flap, I resolved to amputate by lateral flaps. My operation differed from that suggested by Mr. Myles, inasmuch as I first cut the outer flap with a small knife, cutting from skin inwards. The bleeding vessels were secured by ligatures. By cutting the outer flap in this way it can be formed of better shape than by transfixion, owing to the prominence of the trochanter major. Further, a thorough examination can be made of the joint and upper part of the bone, in the event of its being deemed desirable, after the real state of the parts has been observed, to give the patient a chance of retaining his limb by excision. I then introduced a skewer from before backwards, exactly as proposed by Mr. Myles, the parts with the vessels being compressed by an elastic band. A long amputation knife was now introduced by the side of, but below, the skewer, and a large internal flap cut by transfixion. The head of the femur was then disarticulated—an easy process, for it was much wasted and softened by disease. The arrest of the bleeding was most complete, not more than a tablespoonful of blood having been lost.

Satisfactory progress was made after the operation, and the skin wound healed almost by first intention. A little discharge from the deeper parts continued for some time; but this is not to be wondered at considering the nature and extent of the disease.

I have had considerable experience of amputation at the hip-joint. The result has been uniformly successful, as in my fourteen cases I have had no death due to the operation. All my cases recovered except a child aged 9 months (whose leg was removed for a large sarcoma of the thigh) who died of measles contracted after the operation. So far as cutting the flaps is concerned, I pretty much followed the plan recommended by Furneaux Jordan, combined with the skewer securing of the vessels as suggested by Spence.

My experience does not lead me to regard the risk from shock as very great. The operation as described above removes the wound well away from the anus; and by the skewer method, both when antero-posterior and lateral flaps are formed, all danger from bleeding is effectually removed.

A CASE OF ELEPHANTIASIS TELANGIECTODES AND MOLLUSCUM FIBROSUM.

By WILLIAM CALWELL, M.A., M.D.,

Surgeon to the Ulster Hospital for Women and Children, Belfast.

THE patient is a little, good-natured young man, aged 28, somewhat deficient, however, in the higher mental faculties. His father and sister, according to his own statement, suffered from small subcutaneous tumours, resembling the molluscum fibrosum of himself. Over his own body, except on hands and feet, are these sessile tumours, more or less subcutaneously movable, varying in size and elevation, frequently with large comedones, and some having the skin a dusky bluish-red. The left lower extremity is $5\frac{1}{2}$ inches longer than the right, hence he suffers from lateral curvature; the left thigh is 18, the right 14 inches long, and there is great irre-

¹ *General Paralysis of the Insane*, second edition, pp. 269 and 387.