

pathic conditions should pay higher rates than people healthy themselves and whose stock is healthy. He believed we shall need to apply the best thought of both neurologists and psychiatrists in order to arrive at just conclusions regarding these perplexing matters.

Dr. E. D. Fisher agreed with Dr. Sachs in regard to many of the patients being malingerers. They are usually, however, honest in their statements. They may overstate their case. They are disabled, they are unable to work, they usually prefer to be at work and that is something we ought to consider. He disagreed with Dr. Sachs in regard to any previous disease or any tendency to disease being considered in estimating the amount of compensation the patient should get. That should depend upon the fact that they have been injured. If they were well enough to do their work before and are now disabled they should be compensated on that basis.

Dr. B. Sachs said with due deference to what the president has said he was in sympathy with his attitude. In fact, it had been his object in every case to discover whether there is any real psychosis present in any case and most of us would be willing to recognize whether there is a hypochondriacal depression or whether it is assumed largely from the fact that that person is suing. The difficulties are extraordinarily great to determine the actual mental attitude of the claimant. He believed the neurologist and psychiatrist will have to coöperate in order to determine the exact mental attitude. He was sure we are all of us going to be extremely careful in this matter. Several cases of distinct chronic psychoses which have antedated the time of the accident had been brought to his notice. For instance, one was a case of paranoia with delusions of persecution; it was claimed that the accident made that paranoia worse. He really believed that in one form or another we shall have to take some very definite attitude regarding this large number of cases which is going to engage the Association during many years.

(a) SYRINGOENCEPHALIA (SYRINGOENCEPHALOMYELIA. (b)
THE FUNCTION OF THE PYRAMIDAL TRACT

By William G. Spiller, M.D.

(a) The author has shown by the previous report of a case that syringomyelia may not be confined to the portion of the central nervous system below the lower part of the pons. Further investigations have led him to conclude that limitation of syringomyelia as usually taught is incorrect.

(b) The case which furnishes the chief arguments for the conclusions expressed above also permits conclusions regarding the pyramidal tract at variance with commonly accepted teaching. (See this JOURNAL, Vol. 44, p. 395.)

A paper by Dr. F. X. Dercum and Dr. J. Chalmers DaCosta, entitled Intramedullary Tumor of Cervical Cord. Probable Diagnosis. Removal in Two-Stage Operation; Gradual Improvement, was read by title. (See this JOURNAL, Vol. 44, p. 97.)

A CONSIDERATION OF SOME SELECTED PROBLEMS IN A
YEAR'S NEURO-SURGICAL SERVICE

By E. Sachs, M.D., and Sidney I. Schwab, M.D.

It is important to study neuro-surgical cases from two points of view—the neurological, which places its emphasis on the production of symptoms in relation to a definitely placed lesion, and the surgical, which emphasizes the

question of the adaptability of a given lesion to surgical procedure. It is this shifting of emphasis at the hands of two differently trained observers which it is believed will eventually satisfy the broadest demand of neuro-surgical cases. Each case is, therefore, studied independently by the neurologist and surgeon; the resulting data are gathered and discussed before it finally becomes either a strictly surgical problem or is discarded into the class of neurological with no surgical outlook.

Among the many problems that have arisen during the past year, the following seven are selected for presentation and comment:

1. The reliability of the Bárány observations and stimulation of the cerebellum in a conscious patient.
2. Significance of albuminuria in intracranial pressure.
3. Multiple lesions.
4. The place of lumbar puncture in intracranial pressure.
5. Pseudo-optic neuritis.
6. Tumors of the Gasserian ganglion and sinus conditions.
7. Disappearance of cord tumor symptoms after lumbar puncture.

First, are the Bárány tests reliable? How accurate are they? A. P., aged 18, had a partly cystic glioma, the solid part of which was 5×3 cm. in size, in the lobus semilunaris superior and lobus semilunaris inferior. The lesion was identical with that reported in a case by Bárány on February 24, 1913, in the Berlin Society of Internal Medicine. Repeated turning and caloric tests were made and were normal. According to Bárány, a lesion of this region causes errors in pointing from below upwards and laterally. After the tumor was removed, the pointing tests were still normal. The patient then developed a large cerebellar hernia. As the entire tumor had been removed, it was fair to conclude that the hernia was due to a separation of the muscles from their attachment. A fascial transplant inserted under local anesthesia repaired this. The rare opportunity of stimulating the cerebellum on a conscious, intelligent patient was thus presented. Though strong faradic currents were used far greater than are ordinarily necessary to get a discharge from the cerebral cortex even under anesthesia, only lateral nystagmus was observed. The lobus medius superior and inferior and lobus semilunaris superior and inferior on both sides were stimulated as well as the tonsilla. The patient had no sensation whatever when the current was applied. Each lobe was stimulated three times. These observations accord with the work of Horsley and Clarke on the cerebellar cortex of monkeys.

From this case, in which the exact portion of the cerebellum involved was determined twice, the conclusion is obvious that Bárány's findings are not constant.

SIGNIFICANCE OF ALBUMINURIA IN INTRACRANIAL PRESSURE

The problem of albuminuria in intracranial lesions is illustrated by this same case. Albumin was present in the urine, and the deposits about the macular region were similar in appearance to those found in albuminuric retinitis. After operation the eyes cleared up completely and only a trace of albumin was found four weeks after operation. First of all, can eye changes in nephritis be distinguished from those found in intracranial pressure conditions? At times the two conditions are indistinguishable. Many cases of albuminuric retinitis have later turned out to have brain tumors. Secondly, to what extent are the eye changes in nephritis due to pressure? There is unquestionably an increase in intracranial pressure in nephritis, but this does not account entirely for the changes in the eye grounds. A decompression was done under local anesthesia in an advanced case of albuminuric retinitis. During the several months in which the patient survived, no improvement in the vision could be demonstrated, but this might have been due to the fact

that the fundi had atrophied to such an extent that they were beyond the hope of repair just as the impaired vision due to tumor does not fully recover if the disc is atrophied. In the third place, does the urine in intracranial pressure show albumin? This case and the two others observed by the speakers recently suggest that intracranial pressure may be one cause for the appearance of albumin in the urine.

MULTIPLE LESIONS

It is a tradition that cerebral symptoms must be explained by a *single* lesion if possible. The preponderance of single over multiple lesions in the brain appears to support this. The following two cases illustrate the fallacy of this teaching. A mentally alert and active lawyer had been suffering from headaches for many years. One day he suddenly developed paresthesia in his right leg. This was followed in a day or two by paralysis of his left arm. Then he became paretic in both legs. Jacksonian convulsions began in his right leg, followed by unconsciousness after the attack. Slight motor aphasia ensued. At this time he was admitted to the hospital. In the next ten days a bilateral choked disc with hemorrhages developed. The patient was very apathetic and had constant intense headache. In the history the following impression of the case is recorded: "The Jacksonian attack on one side with paralysis on the opposite side, a bilateral Babinski and apraxia of the right hand, suggest a lesion near the median line. A corpus callosum lesion more on the right than the left side seems most probable." Operation was advised, but refused. The patient died ten days later. At autopsy *multiple* abscesses were found, one under each motor area and two in the frontal region.

Case two, a butcher, complained of intense headaches, vomiting, and failing vision. There was moderate swelling of his discs, and markedly impaired vision in the right eye, so that no field could be taken. The left field was normal. Further symptoms were a tendency to fall to the right side, vertigo, marked nystagmus, ataxia of the left leg, and periodic weakness of the external rectus. The interpretative note on this case read: "An intracranial process with apparently considerable change in pressure from day to day. Symptoms point to a posterior fossa lesion. Apparently no nuclear involvement in the cerebellum. Definite localization cannot be made." A cerebellar exploration and decompression were done. Great pressure was found, but no tumor. The patient went home improved, his headaches relieved. He developed a large cerebellar hernia, and returned in six months. The right eye was now totally blind. The left eye showed temporal blindness. The X-ray showed at this examination destruction of the posterior wall of the sella turcica. The diagnosis was revised to a hypophyseal process which had been pressing back on the cerebellum. Witzelsucht was very marked at the time. A sella decompression with removal of part of the gland was done. No improvement. Then a second cerebellar exploration was undertaken with negative results. The patient suddenly died ten weeks later with symptoms of a pontine hemorrhage. Autopsy showed multiple lesions due to the cysticercus of the tænia solium. A lesion in the fibers of Gratiolet proved that the progressive blindness had been a homonymous hemianopsia, not a bitemporal one as had been supposed. The Witzelsucht may have been accounted for by a cyst in the frontal region; the cerebellar symptoms by the process about the base of the cerebellum. The immediate cause of death, however, was a pontine hemorrhage.

THE PLACE OF LUMBAR PUNCTURE IN INTRACRANIAL PRESSURE

Lumbar puncture has become such a routine procedure that it is used as if it were without danger. In some clinics it is done even in ambulatory cases. In suspected posterior fossa lesions, or those with marked intracranial

pressure due to a supratentorial process, the authors do not do lumbar puncture. They do *not* believe that doing the puncture with the head lower than the hips makes this a safe procedure. Bad results from lumbar puncture have not been reported as frequently as they occur. This suspicion has been confirmed by a recent article by Schönbeck in which, besides reporting many cases with rather severe symptoms, he records seventy deaths directly due to a lumbar puncture and believes that these represent but 10 per cent. of the deaths that have actually occurred. Most of these have not been published in the literature, or have been ascribed to other causes. The speakers have in the past year had two cases that have emphasized the danger and crystallized their views on the contraindications for lumbar puncture. In both cases there was intense pain in the cervical region and along the first dorsal and eighth cervical segments. Passive movements of the head were painful. The rigidity of the neck, severe pain and its cervical root distribution suggested the possibility of a meningitis, but the absence of fever and clearing up of symptoms in forty-eight hours excluded such a diagnosis. Therefore, as spinal puncture is dangerous in posterior fossa lesions and in supratentorial ones associated with marked pressure, they never do it in the former, and in the latter only after most careful consideration.

PSEUDO-OPTIC NEURITIS

Pseudo-neuritis is a very rare condition and one to which very little attention has been paid. A boy was sent to the authors by an expert ophthalmologist as having a choked disc. The picture was perfectly clear. The boy had headache, no localizing symptoms, and a negative Wassermann. A palliative decompression was done. The eye grounds remained unchanged. Further study on the part of the ophthalmologist convinced him that this was a case of pseudo-neuritis, a congenital anomaly. Wildbrand and Sängner, Bordely and others have warned against this mistake.

This case brings up the interesting question, what attitude should the neurological surgeon take in case a patient has a choked disc and no other evidences of intracranial pressure, either general or focal. Since decompression for intracranial pressure is attended by a very low mortality, the authors feel that a palliative decompression is absolutely indicated, and that by early interference alone can the maximum amount of vision be preserved. They believe that this procedure should be followed even more in the case of children, since we have had a number of cases in whom all other general intracranial symptoms were extremely mild or totally absent.

TUMORS OF THE GASSERIAN GANGLION AND SINUS CONDITIONS

Trigeminal neuralgia, with its motor accompaniment known as *tic douloureux*, may be due to sinus disease, a number of unknown factors, and the much rarer condition, tumor of the Gasserian ganglion. The pain in this latter condition is quite different from that of true *tic douloureux*. It is constant, whereas the latter is paroxysmal. The pain of sinus disease may be as constant and as severe as that of a ganglion tumor; fever and a leucocytosis may accompany the former though never the latter. An ocular palsy may occur with sinus disease, but the most important, absolutely diagnostic sign is involvement of the motor branch of the fifth nerve. This was the diagnostic sign in one case on which the authors based their diagnosis. They do not believe it is necessary to wait for atrophy of the muscles of mastication as was done in other cases. Early recognition of this condition promises the only prospect of relief. Their case, the seventh that has ever come to operation, also has a recurrence with a return of pain. They believe more of these cases will be recognized if every case of pain along the trigeminus has its motor fifth nerve examined with great care.

DISAPPEARANCE OF CORD TUMOR SYMPTOMS AFTER LUMBAR PUNCTURE

The complete relief by lumbar puncture of symptoms apparently due to a localized lesion in the cord is in their experience an unusual phenomenon. In September, 1915, Mrs. V., aged 23, showed on examination a saddle anesthesia, bladder and rectal disturbances, and weakness of one leg, and pain in her left leg. Lumbar puncture showed a normal cerebrospinal fluid. Immediately all sensory disturbances cleared up, and bladder and rectal control were regained. The explanation at the time was either that they had evacuated the fluid of a circumscribed serous-meningitis or that the cerebrospinal fluid had been obstructed by a tumor and had been the prime factor in causing the compression symptoms. Up to the present time the patient has had no return of her symptoms, and the most probable diagnosis is believed to be a circumscribed serous-meningitis. An identical case was reported recently before the Philadelphia Neurological Society by Dr. Weisenberg.

It has seemed to the speakers that problems of this sort could with profit be presented here in place of isolated case reports or statistical studies of cases.

PREVENTIVE NEUROLOGY

By Charles L. Dana, M.D.

The importance of neurology in its relation to social problems and preventive medicine: (1) Neurology and mental retardation (epilepsy, habit-neuroses, psycho-neuroses, insanity, neurology and mental hygiene); (2) neurology and its relation to specialization of industrial work (occupational neuroses); (3) neurology and the acute and chronic infections and poisons (chorea, myelitis, neuritis, so-called neuralgias, multiple sclerosis, etc.); (4) neurology and defective methods of study and education (neuroses of childhood and adolescence, psycho-neuroses); (5) neurology and defective metabolism (autotoxemic disorders, glandular and degenerative disorders, thyroid disorders, paralysis agitans, etc., neuralgia); (6) neurology and hereditary disorders; (7) luetic nervous diseases; (8) neurology and arterial disease (hemiplegia, etc.).

Dr. James J. Putnam said that instead of Dr. Dana adding the words of apology for what he says, Dr. Putnam felt that we owe him an apology if we do not give all the attention to these very important suggestions that they are really worth. This collective work which brings the labors of the neurologists in contact with those of other physicians and public health officers, those working with public heredity and the like, is the most important work the neurologist can do. Dr. Putnam voted with regret for the disbandment of this Committee, and although he can see that this step was necessary it would be an excellent thing if a certain time should be allotted each year at the annual meetings to the consideration of our obligations to the community. Dr. Dana has opened a number of doors which should not be closed.

Dr. Charles L. Dana thought that something definite and practical might be done by getting a research laboratory to take up some one of these problems in collaboration with medical men.

NOTES ON THE TREATMENT OF MENTAL TORTICOLLIS

By L. Pierce Clark, M.D.

The nature of the disorder as shown by a complete analysis of four cases. Successes and failures in the psychological treatment and the hypothetical reasons for the latter.

Dr. James J. Putnam said that papers of this kind ought to be welcomed