Society Proceedings

NEW YORK NEUROLOGICAL SOCIETY

THREE HUNDRED AND EIGHTY-SIXTH REGULAR MEETING

HELD AT THE ACADEMY OF MEDICINE, FEBRUARY 1, 1921

The President, DR. FOSTER KENNEDY, in the Chair

PRESENTATION OF CASE OF INFANTILE NUCLEAR APLASIA OR INFANTILE MOTOR DEFECTS IN THE CRANIAL NERVES

DR. I. ABRAHAMSON considered this condition a congenital and hereditary one, often affecting many generations. According to Zappert the ocular defects are the most frequently observed and occur with preference where there has been a neuropathic family history. Alcohol or lues play very little part. Infantile nuclear aplasia is often combined with other congenital defects, such as hernias, genital dystrophies, muscle defects, aplasias of other organs; while facial defects are often combined with malformation of the ear or temporal bone. Facial hemiatrophy has been observed; also skin changes. The face may look atrophic and mask like. Moebius first described the condition in 1892 as infantile nuclear aplasia. It has been shown, however, by Schultz, Bernhardt, Zappert, and others that this is not anatomically, or invariably, true. A nuclear lesion need not be primary even if it can be proved to exist. The nucleus, motor nerve and muscle are a biological unit. In the peripheral facial palsy all three branches are affected; in the supranuclear (central) and in many bulbar palsies the lower two thirds are mainly affected; in the congenital motor defects the upper third is motionless, the lower two thirds still may functionate.

The little patient presented, a girl, four years and nine months old, showed a characteristic facial expression. She also had nursing difficulties due to the facial involvement, and epileptic seizures, another common feature of the condition. The birth had been normal by new gas treatment (not twilight sleep). The baby cried at once. No otitis was reported. At three months of age the facial palsy was first noticed on crying or laughing. Teething occurred at seven months, standing at eighteen months, walking at twenty-two months, speaking at ten months. She was normal in every way except for the facial palsy and is very bright today men-

tally. During rest the mouth is not crooked at first, then draws up to the right side. The left aperture is greater than the right. There is a flattening of the face on intention; the left facial middle section reacts more quickly than the right. On closing the eyes the face is drawn up on the right side, while the left side is flattened. On laughing, the difference in the two sides of the face is greatest. The involvement may be designated as belonging to the eye, face, and tongue group. There is weakness in both external recti, especially the left. Lateral movements are poor, although up and down movements can be made without difficulty. The jaw jerk is more lively on the left. The forehead cannot be wrinkled at all. There is an atrophy of the left side of the tongue with a deviation of the tongue to the left. Faradic irritation is present, and the tip and abductors give normal reactions. The case belongs to the congenital nuclear amyotrophies, and the question raised in Dr. Abrahamson's mind was whether an anastomosis with the spinal accessory nerve would be worth while. He was not very optimistic about the operation in this case.

DR. FOSTER KENNEDY said that he had seen something of such cases and thought that it would be unwise to embark on operative procedure. What is obviously present in some of the nuclei is probably present in others and the grafting operation might be without avail since the graft material might also be affected. The deformity, he felt, would probably become less as time went on.

DR. WALTER TIMME asked whether there had been any diplopia.

DR. ABRAHAMSON answered in the negative. He said that at the time of the patient's birth an epidemic of poliomyelitis had been raging which persisted for some time later. The patient's mother had made every effort to keep the baby away from other children on this account. The possibility of intrauterine infection Dr. Abrahamson touched upon as well as the possibility of infection in early infancy, but felt that these were practically negligible.

THE WIDENING FIELD OF NEUROLOGY

ABSTRACT OF ADDRESS OF THE RETIRING PRESIDENT

DR. WALTER TIMME first recalled certain of the noteworthy meetings of the past two years. He paid special tribute to the memory of Dr. Southard and the last hour he spent with the Society just a year ago. The radium treatment of nerve tissue tumors as described by Dr. Ewing and his associates he considered a contribution of inestimable value. Some lack of advance in purely formal neurology there may have been, due to pessimism concerning the efficacy of the treatment of organic central nervous disturbances. The age has shown the tendency of mathematical application to the diagnosis of human ills rather than to their correction. The philosophy of nervous affections, studies of personality, psychoanalytic aspects of nervous disease, analyses of character defect have all had their reflections at the meetings. The recognition of a new disease entity, lethargic encephalitis, however, has urged attention once

more to the intensive study of the physiology and pathological anatomy of the central nervous system. In this field the work of J. Ramsey Hunt on the basal ganglia and the expounding of a new theory of kinetic control, and the monumental work of Tilney and Riley, the first of its kind, on the forms and functions of the central nervous system are matters of great achievement.

Perhaps the most important of the activities of the Society during the past years has been the entrance of neurologists into the social-industrial-economic field. The threatened socialism of medicine has brought the physician into direct contact with law, politics and the government of the state, and it is of the utmost importance that if the physician is to be controlled by certain laws he should assist in framing them. The public has the right to know why the physician considers himself the guardian of public health rather than various naturopaths, osteopaths, chiropractics and so called scientist healers. We must meet our wards in their every day life, guarding them from dangers of employment, of transmitted disease, and those of social environmental origin. The Society has established two committees as an initial step in the task, one on occupational neurological disease, and the other on neurological standards, or the minimal standards of neurological training with the necessary basic education. The committees have begun their work and it is to be hoped that there will be added in the future a legislative committee to make the results of the work of the two other committees effective.

Finally, the Society has not only inaugurated the Association for Research in Nervous and Mental Disease, but this association has held the first meeting and has presented the findings of the symposium (in this instance on lethargic encephalitis) before a representative gathering. Neurologists of the entire country, and some in Canada and England have been interested by a novel method of procedure adopted by the association, viz., the commission method of jury investigation into the merits of each scientific presentation, in which the proponents are questioned as to their methods of work, their observations, and conclusions. This method, which has been used with success, is being made the model of many old time medical societies as the best and most economical in time expenditure, and the most meritorious that has yet been devised in the scientific results obtained.

AN ADDRESS BEFORE THE NEW YORK NEUROLOGICAL SOCIETY

ABSTRACT OF ADDRESS OF THE INCOMING PRESIDENT

DR. FOSTER KENNEDY taking as his point of departure the findings of the Association for Research in Nervous and Mental Disease on encephalitis lethargica proposed to examine the knowledge available concerning the routes by which organic and inorganic bacteria and toxins gained admission to the central nervous system.

It was found that the bulk of individuals with encephalitis had evidence of an injury to the mesencephalon, to the striate bodies and to the red nucleus. The first sign of infection other than general malaise was usually diplopia dependent on a disintegration of function in the oculomotor nuclei, a district not considered easily accessible to exogenous poisons. The explanation for the attack and the route followed was not made clear, it was merely assumed that the poison or group of poisons responsible for the disease had unknown properties of specific chemotropism for the nerve structures initially damaged. This explanation is not enough. When the anatomical and physiological properties of nervous tissues were first under investigation little or nothing was known of infection, and the constant warfare between the cells and humours of the body and the host of microscopic and ultra microscopic organisms not even conceived of. The morbid courses of infections are for the first time becoming explicable to us by the portal of the endocrines. A consideration of the pathogenesis of the infections of the nervous system may reveal a unity of morbid process in many ailments clinically unlike, a pathological synthesis as valuable as the analyses of symptoms customarily made. The reaction of each individual varies with the different physical personalities, possibly in accordance with the different kinds of endocrine balances in each of us. But the minute variations require training to detect the differences between similar appearing objects. Individual reactions to toxins from without will then become visible, reactions which we now look at but do not see. Further, just as one man differs from another in his reaction to infection, so in a single organism there are a host of unknown and little thought of circumstances which determine the incidence and distribution of the lesions,—a case of Addison's Disease has tuberculosis of the adrenal gland but one would like to know why tabes mesenterica, or a fibroid phthisis are not present instead. A statement of such an example shows our modern wish to be dissatisfied with the mere nomenclature of disease and our desire to dig into the basic study of the conditions of liability and resistance to infections in the various tissues and organs of the body.

The most common route of infection of the central nervous system is by the airways, guarded by the cilia of the mucosa and perhaps the mucoid material with which the mucosa is lined. It is probable that ferment action from dead or living bacteria effects the first rent in the epithelium giving access therefrom to the lymphatic and blood systems. Over the respective rôle of these two systems in conveying noxious material there has been much controversy. It would appear that the defensive mechanism of the choroid gland in excluding all hematogenous material unsuited to its purpose coupled with the anatomical continuity of the lymph system with the cerebrospinal pond, make it more than a working hypothesis that by the perineural and endoneural lymph channels of the cranial and spinal nerves toxins can reach with unfortunate ease the cerebrospinal axis. Attempts at producing brain and cord lesions by the intravenous injection of bacteria have failed on account of

elective filtration of the choroid plexus whereby large colloid molecules are forbidden access to the central nervous tissue, and the whole group of albuminoid toxins are thus cut off from direct invasion of the brain space. These large molecules can pass easily through the walls of capillary vessels thus breaking from the blood to the lymphatic chain. This permeability of the capillary wall is an important factor in the mechanism of many infections, notably of tetanus. Trismus, one of the earliest signs of the onset of generalized tetanus even when the initial lesion has been in one of the lower extremities, appears to be an evidence of a blood borne toxemia though the mechanism by which the motor root of the fifth nerve is thus early irritated is not clear. In diphtheritic nerve intoxication oculomotor palsy is a constant feature, and the infection of the third nerve nuclei in epidemic encephalitis is common. This especial susceptibility to react to general infection may not be due simply to delicacy of structure but may depend on anatomical avenues for invasion as yet not comprehended. The diphtheric infections studied by Walsh in the Palestine campaign, often taking the form of so called desert sores gave nearly pure cultures of Klebs-Loeffer bacilli, and numerous cases of peripheral neuritis ensued. Most important was Walsh's observation that invariably there was an initial focus, a local paresis related anatomically to the site of the infective focus, a circumstance suggesting the perineural lymph stream as carrier to the nervous elements. The poliomyelitis virulence of the mesenteric lymph glands of subjects whose blood is innocuous is another circumstance of moment.

Two cases were described where diphtheritic infection was followed by local polyneuritis and with these Dr. Kennedy correlated certain other cases described as acute infective neuronitis. These occurred as a minor epidemic among soldiers in the field and were characterized by fever, peripheral neuritis and ascending signs of involvement of spinal roots and ganglia. A constant feature was peripheral paralysis of the face and of the lower muscles of deglutition. The pathological picture resembled those obtained experimentally by Orr and Rows in their work on lymphogenous infections.

Dr. Kennedy felt that it was a particular detriment to science that medical talent had developed into a variety of fields distinct and separate from each other, and that no adequate head quarters had been evolved where reports could be received and correlated. The modern student receives instruction in animal physiology from physiologists who never enter a ward, in chemistry from chemists often without interest in either physics or biology. This segregation of different branches of learning is continued into adult professional life. As a society for the advancement of learning it would be to our advantage to arouse interest in our problems among physiologists and biological chemists, among pathologists and anatomists, even to include them in our body. Their science would be made humane, our medicine more scientific.

NANISM OF PITUITARY ORIGIN AND OR TALTAUF
TYPE COMBINED WITH A POST INFECTIOUS
STRIATE SYNDROME

DR. WALTER M. KRAUS reported the following case:

History.—Joseph Gowdy, twenty-eight years of age. This patient was normally born and is said to have been normal up to the age of eighteen months. At this time an attack of whooping cough confined him to bed for three months. Contractures, involuntary movements and so called paralysis followed. He had pneumonia two years ago.

Family History.—Mother died at the age of fifty-two, of a second stroke and paralysis. Father died at the age of fifty-two of cirrhosis of the liver and chronic alcoholism. There are two brothers and one sister, all living and well. One brother died in infancy. He is said to have been normal. The patient came to the surgical wards of Bellevue Hospital for treatment of an abscess of the neck and was then transferred to the neurological service.

This case represents two pictures which are described separately for the sake of clearness. The first condition is that of dwarfing, nanism. A few of the autopsy notes from Taltauf's original description of the condition are first quoted, giving the identical or similar elements in this case later on.

Taltauf's case was described in 1891—thirty years ago. "He had been for twenty-one years servant to a Colonel of the Austrian Army, and had served through two campaigns in this capacity and had subsequently worked as a gardener. He had twice suffered from rheumatic affections of the knees and subsequently, on two occasions, from general edema. In both instances this was relieved after a few weeks. Three weeks before coming under notice, however, the general edema returned, and for it he was admitted to the Hospital. He died twelve days later. He showed the following peculiarities: height (at the age of forty-nine) forty-five inches, taken during life; for the head: horizontal circumference—twenty-one inches. There was a slight scoliosis with convexity to the left in the upper dorsal region; the lower dorsal and first lumbar vertebrae showed a slight compensatory curve, convex to the right, while the lumbar column showed, in addition, marked lordosis. The development of the external genitals was that of childhood; the prepuce was phimotic; the left testicle was in the scrotum, the right, in the inguinal canal. Autopsy showed, in addition to dwarfing of growth, "chronic lymphatic glandular tuberculosis, acute disseminated pulmonary tuberculosis, hypertrophy with dilation of the right side of the heart, fatty degeneration of the myocardium and recent hemorrhage into the pons. . . . The head was relatively big, the face short and broad, with prominent malar bones, the bridge of the nose was depressed, broad and saddle shaped; the nose itself was blunt. The neck was short, the thorax convex, at least in no wise flat. The abdomen was hemispherically arched forward. Apart from general edema and other changes stated, there were no noteworthy abnormalities in any part except the skeleton. The

thyroid gland was, however, 'very small and pale red.' It is enough to say that as a whole compared with the normal, the skeleton corresponded to that of a boy of seven years of age" (quoted from Riechbieth).

The patient presented at the meeting showed the following findings, taken in the order in which Paltauf described them.

Height: Fifty and one-half inches as compared to forty-five inches in Paltauf's case. (This is the normal height for a boy between ten and eleven years.)

Lordosis and scoliosis.

The genitals of a child. There was almost complete phimosis, the opening in the prepuce being just visible. The testes are very small, the left is in the scrotal sack, the right in the inguinal canal.

There was an abscess in the right supraclavicular fossa which had been opened and drained within the month. It was probably tuberculous in origin.

The features were of the same type and the skin is wrinkled and pigmented like that of an old man.

The mentality is normal. Joe is very alert, was graduated from the public schools, reads books such as are understood by the normal adult and has a good sense of humor. He is now reading "Mrs. Warren's Daughter." He can beat most of the other patients on the ward at checkers. Our impression of his mentality is that it is normal. His voice is high-pitched.

These findings establish the type of dwarfing. His appearance and mentality rule out cretinism. His mentality differentiates him from the Lorain type who are childish in their mental development. The sexual development rules out the simple ateliosis of Hastings Gifford.

As to etiology, Riechbieth, in his long monograph, published in 1912, and dealing with dwarfs of various types, remarks as follows:

"There remains as the possible primary cause of ateliosis, abnormality or defect of the pituitary body or hypophysis cerebri, and this at the present time seems, on the whole, the most probable. In Paltauf's case it is clearly stated that the cavity of the sella turcica was much enlarged and that the pituitary fossa showed measurements, which were in all directions greater than those of the mean of several adult skulls of average size, whereas the rest of the sphenoid bone showed measurements which were less than those of a child of seven years (of a child of a height that is equal to that of a Paltauf's dwarf). It is to be supposed, therefore, that in this case the pituitary body was considerably enlarged; but there is no note of the pituitary itself being examined. This is the only definite evidence that there is upon this aspect of the subject. The number of autopsies made have been very small, and in none of them, except the above instance, was this point investigated. In Hastings Gifford's autopsy the pituitary fossa appeared normal, but the hypophysis cerebri was not examined. So that the view that ateliosis is due to abnormality or defect of the pituitary gland must at present remain hypothetical but it appears probable at the present day."

Up to the time when Riechbieth wrote this, 1912, the evidence

was in favor of pituitary origin of the Paltauf type of dwarf. Since that time the evidence has accumulated so that by now we may be reasonably certain of this.

Dr. Kraus reported a case of a dwarf of this variety about five years ago in which an investigation of the pituitary was made at autopsy. The striking thing was a replacement of nearly the entire gland by brownish material. Practically no normal tissue remained. The patient also had the general edema which Paltauf described. In the case under consideration there is clinical evidence of the pituitary origin of the condition. The patient looks like a miniature adiposis-genitalis of Froelich. His breasts are large and soft, his abdomen is pendulous, fat and square in shape at its lower part. There is a large mass of fat above the pubis which looks like the prominent mons veneris like pad seen in the Froelich cases. There is no hair on the body except that of the head, eyebrows and lashes. The teeth, the second set, are short and stubby, not spaced and not extensively decayed. The hands and feet are quite small.

It seems apparent, therefore, that there is now good evidence to show that the Paltauf type of dwarf is due to diminution of the function of the pituitary gland and is usually due to a cystic formation.

The second element in the case can be quickly described.

About three months after the beginning of an attack of whooping cough which occurred when the patient was eighteen months old, he had several convulsions and then lapsed into the state of contracture and choreiform movements of the face and extremities which he now has. The condition is therefore not progressive. He is spastic throughout, more so in the upper extremities than the lower, and more in the right arm than in any of the other extremities. However, he is able to walk. He walked to the hospital when admitted recently. He sometimes has difficulty in starting to speak, sputtering a good deal. However, when undisturbed by involuntary movements, he can speak normally. There is no definite history of dysphagia, and none has been noticed on the ward. He has frequent seizures in which the arms move at a slow rate and in a choreoathetoid fashion, and the facial muscles give the impression of either laughing or crying. The pupils react to light and accommodation. There is almost continual hippus. The reflexes in the upper extremities are normal. The abdominals are not obtained, possibly due to the flabby abdomen which has been described. The tendon reflexes of the lower extremities are normal. The great toe is held in the position of extension as frequently as not and has a greater tendency to do so when the patient is on his back than when sitting. Stimulation of the sole sometimes produces extension of the great toe, sometimes flexion. The Oppenheim and Gordon reflexes were also extremely variable. In brief, the continual change in the position of the great toes made it difficult to state just what their reactions were. The thyroid is palpable and hard. There is impaired percussion note over the left lower lobe of the lungs and a few dry râles are heard.

Due to the continual movements, x ray pictures could not be

taken to determine the condition of the lungs, epiphyses and sella turcica.

The clinical picture is that of a striate level lesion, due to an encephalitis and following one of the acute infections, whooping cough.

DR. TIMME said in discussion, that the cases of Froehlich's dystrophy that we see are invariably accompanied by endocrinopathic familial disturbances. This case though it presented some characteristics of Froehlich history has no familiar history. He was inclined to believe that the whooping cough and synchronous disturbances in the pituitary occurring at such an early age would give the rôle of causative factor of the disturbance to the infection.

DR. ONUF was not convinced of the superior mentality of the patient. He felt that he was an infantile endocrine type. His expression and attitude indicated it.

DR. KENNEDY thought that the patient might appear infantile emotionally, yet be intellectually mature. His choice of reading matter and ability in checkers would seem to indicate adult mental power.

DR. ONUF referred particularly to the manner in which he followed the proceedings at the meeting, which he considered very infantile.

DR. L. PIERCE CLARK asked whether psychological tests had been made to determine the patient's mental status. He agreed with Dr. Onuf in regard to the impression given of infantility.

DR. KRAUS thanked Dr. Timme for bringing up two puzzling issues; one the relation of the two conditions to each other, the other the possible congenital origin of the pituitary disorder. The proof of either is not convincing. However, the presence of undescended testicles suggests a congenital origin and hence a separate origin for the pituitary disorder, the infection having come on later and having caused the striate level syndrome.

In reply to Dr. Clark, Dr. Kraus said that psychometric tests had not yet been done.

A CASE OF BRAIN TUMOR—CLINICAL AND PATHOLOGICAL NOTES

DR. E. D. FRIEDMAN reported the case of a forty-nine year old sea captain who complained of pain in the left side of the face and progressive loss of hearing. The left eye at first became "smaller." Examination showed the left pupil smaller than the right, the left palpebral fissure narrower. There was hyperalgesia in the distribution of the fifth nerve on the left. Hearing was impaired on the left and a tumor mass was felt in the neck on the left in the angle of the jaw. The rest of the neurological examination was negative. A positive Wassermann reaction indicated antileptic treatment. A month later the patient complained of diplopia and there was weakness of the left sixth. Shortly after this the patient complained also of a persistent objectionable taste in the mouth described by him

as resembling that of Jamaica rum. He then had three seizures, each preceded by a sharp pain in the left side of the face, things grew dark before him and he had to struggle to keep from falling. Vertigo was present, objects seemed to move to the left; there was no loss of consciousness, but drooling from the mouth and the taste persisted. The attacks which came about a week apart lasted five to ten minutes. Four months after the first admission the patient felt that his symptoms were considerably worse; he had lost vision in the left eye, the eye was very prominent, the swelling of the neck was larger. There was complete paralysis of the third nerve on the left with the exception of the fact that the pupil was small. Fibrillary twitchings were noted in the motor fifth. The sensory fifth was completely paralyzed on the left, there was no "herpes," the sixth nerve was parietic. The seventh was normal on voluntary innervation, although there was a slight drooping of the left angle of the mouth. There was no nerve deafness on the left. In the Weber test the tuning fork was lateralized to the left. The vestibular tests were not made. The ear drum was retracted on the left. There was percussion tenderness of the skull on the left in the front parietal region. No brain stem phenomena were ever observed. The patient became rapidly worse and died after a period of neuro-paralytic conjunctivitis and evidence of retrobulbar pressure, rather than choked disk on the left. X ray examination of the chest showed no metastatic foci in the lungs or chest wall. X ray examination of the head was negative.

The general physical examination was negative with the exception of considerable edema of the palate. Blood pressure was normal. Wassermann of the blood was positive. The spinal fluid was clear and under fair pressure. There were 234 cells, globulin was plus, the colloidal gold curve was normal, and the Wassermann was positive. Visual fields on the right were normal. There was no aphasia.

Because of the positive serologic findings and the involvement of the nerves at the base of the skull, the patient was at first thought to have a luetic meningitis and he was subjected to intense anti-syphilitic treatment. In spite of this however his symptoms gradually got worse and he rapidly lost ground. The diagnosis was then changed to tumor involving the middle fossa of the skull on the left. The behavior of the left pupil was explained on the basis of an injury to the dilator fibers of the third. The slight drooping of the angle of the mouth on the left was thought to be due to the sensory loss in the face with resulting diminution of muscle tonus. The seizures were looked upon as probably gustatory fits which found their explanation in the adhesions between the tumor mass and the tip of the temporal lobe. Posterior fossa neoplasm was excluded by the absence of the nystagmus, nerve deafness, cerebellar signs and true papilledema.

The pathological findings in this case were reported by Dr. B. H. Fairbanks. At the post mortem examination the following condition was found. The dura was adherent and removed with the calvarium: the brain appeared normal except for some flattening of

the convolutions and was not involved in the growth although some resistance was felt in disengaging the tip of the left temporal lobe, which was slightly adherent to a neoplasm apparently growing from the dura of the middle fossa. The tumor roughly occupied the center two thirds of the middle fossa on the left side, and had overgrown the pituitary body, and overlapped part of the lesser wing and the basilar portion of the sphenoid, and some of the petrous portion of the temporal bone. It had surrounded the third, fourth, fifth, and sixth cranial nerves at the points of their exit from the skull, and a protrusion forward into the orbit had surrounded the left optic nerve.

A further projection of the tumor extended downward through the foramen lacerum into the pterygoid fossa for about 3 cms., where it ended abruptly, no connection being made out between it and a nodular mass on the left side of the neck, deep to the sternomastoid, about 8 cms. in length.

Both middle ears were full of turbid fluid and the left maxillary antrum contained pus.

Histologically the growth did not conform to the appearances associated with sarcomata or endotheliomata of the dura, these being the types of neoplasm most frequently found in the middle fossa, and which moreover not infrequently metastasize in the neck. The microscopic preparations of the nodular mass in the neck however showed it to be an endothelioma of the variety occurring primarily in the lymph glands, and as no further tumor was found on careful examination of the rest of the cadaver, the somewhat unusual conclusion must be reached that the intradural growth was secondary to that in the neck. The histological findings in this case bore out the clinical deductions to an unusual extent, the deafness of the left ear was doubtless occasioned by sepsis and not nerve defect. The exophthalmos may have been due to mechanical pressure of the tumor forward as it did not invade the contents of the orbit. Although the brain substance did not appear to have been invaded, pressure on the temporal lobe may have been sufficient to account for the gustatory hallucinations. The nerves corresponding to the loss of function noted in the clinical course of the disease were readily identified as those caught in the tumor growth.

EFFECTS OF PROHIBITION AT BELLEVUE HOSPITAL

DR. JOHN W. BRANNAN (by invitation) reported that with the going into effect of the National Prohibition Amendment the number of admissions to the alcoholic wards was markedly lessened. When the Volstead law went into effect the same decrease was expected and for the first two months in 1920 there was a marked decrease, but shortly thereafter the admissions began to increase and the last half of 1920 gave a total of 1,386 admissions or only 18 less than the total admissions for the first half of 1919. The totals for the years, however, showed 2,211 for 1919 and 2,312 for 1920. It had been observed that the admissions had been gradually de-

creasing since the entry of the United States into the war and a chart drawn up to cover the admissions since 1917 gave the marked decrease in totals from 5,714 in 1917 to 2,439 in 1918. America's entry into the war in April, 1917, was followed by a drop from 628 to 547 in May, 413 in June, 345, 376, 405, 358, 295, and 372 for the succeeding six months.

An improvement in general conditions is evident from the fact that the number of patients showing symptoms of chronic poisoning (twenty years ago one of the most important factors in the history of and condition of patients in all wards of the hospital) has decreased strikingly.

In order to explain the increase in admissions in the past six or eight months, Dr. Brannan thought that the unconcealed operation of the innumerable saloons and the apparent winking of authorities in charge of enforcing the Government laws might be adduced as sufficient cause. In handling the alcoholic patient in years past a repeater would occasionally be sent to court, where the magistrate would usually rule that drunkenness was not a crime and would discharge the offender. Recently it was suggested that an alienist should testify as to the patient's condition and accompany him to court to try to have the frequent offender committed to the work house. Dr. Brannan saw Mr. Justice MacAdoo to determine whether the patient could be made to testify under the Volstead act as to where the liquor was obtained, and was told that the courts had no authority to compel the giving of such information. Dr. Brannan next went to Col. Cathey, U. S. attorney, with the suggestion that the offenders be sent to the Island on charges of vagrancy. In this case he was told that any magistrate would send the patient home to support his family. The records of the patients admitted to the hospital showed that a number of bachelors were usually in preponderance, but even so some family duties it was thought would be arranged. Finally Dr. Brannan went to the Police Department and the inspector intimated that he might be able to do something with the list of saloons that were operating openly and with which Dr. Brannan supplied him. No reports had come in of any action at the time of the meeting. Dr. Brannan said that he had come to the conclusion that Federal aid would not be forthcoming and that local authorities would have to act on these matters themselves. In fact the U. S. Attorney said to Dr. Brannan that enforcement was only a very small part of the work to be done by his department.

REMARKS ON THE DIMINISHED THERAPEUTIC USE OF ALCOHOLIC STIMULANTS AT BELLEVUE HOSPITAL, BEGINNING BEFORE PROHIBITION

DR. BRANNAN presented charts to show the decrease in consumption of prescribed whiskey in Bellevue Hospital from an average of .59 oz. a day per patient in 1903 to .06 oz. in 1920. This reduction has been observed in other hospitals and has been pro-

gressing slowly, almost without attracting attention. It used to be customary to give alcoholic stimulation fairly generally in the general medical and general surgical wards, and even to the alcoholic cases. These latter now receive no whiskey ration, and this may possibly account for their exceedingly short sojourns in the hospital at the present time. But even the general medical and surgical wards show a marked decrease, although this decrease varies somewhat according to the superintendence. A marked increase in the *per capita* consumption in January, 1919, the time of the dying out of the influenza epidemic is undoubtedly to be explained on the ground of the vast number of influenza patients in the hospital at that time. Here again individuals in charge of wards showed a variability in the doses given, ranging from only a fraction of an ounce to 16 to 24 ounces in some wards during the height of the epidemic, October and November, 1918.

This change has been going on undirected by any outside or inside force at the hospital and has apparently escaped general attention.

DR. GEORGE O'HANLON (by invitation) in opening the discussion said that he could not add much encouragement to the hopefulness of sending bachelors to court in an effort to have the alcoholic offenders committed, since they all proved to have dependents. At a hospital conference the question of the use of alcoholic liquor in the hospital was brought up. Practically all the representatives at the conference had had the same experience. One hospital was noted to have been prescribing extensively since the beginning of prohibition. No reason for this could be found except the attitude of the staff. The Philadelphia hospital had had the same experience as Bellevue. They had been able to close the alcoholic wards. During the last three or four months an increase in patients has led them to consider reopening the wards. The Cook County Hospital in Chicago reported the same experience. In short with the coming of prohibition there has been a large diminution in the number of individuals applying for admission to the hospitals as well as to the Municipal Lodging House. The employment problem has probably had an effect here also. An increase has been noted in the last few weeks; four years ago the admissions were 2,320, recently the number went down to 35, and is up to 350 at present. Commissioner Coler reports also a decided decrease in applications to the child-welfare bureaus since the advent of prohibition. No recent increase has been noted in this branch of public-welfare work. During the first few months of prohibition there was a decrease in the ambulance calls, although the cause for this cannot be determined. Still there is a marked decrease from the number of calls of three or four years ago.

DR. CRAIG asked whether the beds vacated during the period when the admissions were few were filled with legal types of illness. Dr. Brannan said that they were.

DR. O'HANLON said also that the Bellevue authorities were glad to be able to close wards formerly used for alcoholics and thus release part of the nursing staff. The wards formerly assigned to alcoholic patients are now used for mental defectives.

DR. KIRBY, who had presented at the last meeting of the Society a study of the incidence of alcoholic psychoses in the State hospitals, and of alcoholism at Bellevue Hospital during a twelve year period, expressed his interest in Dr. Brannan's figures which dealt more particularly with alcoholism during recent months, especially since the prohibition amendment went into effect. According to Dr. Brannan's figures, there has been some recrudescence in alcoholism during the last few months, but this may be regarded as insignificant when one compares the number of cases now appearing at Bellevue to the number a few years ago. There is no doubt but that the habits of people have changed in recent years and one must regard the passage of the prohibition amendment as the culmination of a movement which has been advancing steadily for a decade or more. The emotional reaction of the population to the war as expressed in terms of alcoholism was interesting. There had been a steady decline in the number of cases of alcoholism at Bellevue Hospital and also in alcoholic psychoses for some years until just before the United States entered the war, when there was a perceptible rise. Following the declaration of war by the country there occurred a marked drop which, so far as alcoholic insanity is concerned, has continued without further interruption.

DR. HARTWELL (by invitation) discussed the lessened use of alcohol as a therapeutic measure. He said that alcohol has been proved to be a depressant rather than a stimulant as usually believed, and the experiment of using it as the latter was naturally discontinued, all surgeons becoming more and more convinced that to use it was a failure and actually harmful. In the medical wards the same process took place. The decrease has been the result of the gradual education of the medical profession in the real nature of alcohol. As far as the effect of prohibition is concerned, the country is confronted with the complete overthrow of conditions of long standing. To be told suddenly to stop the use of alcohol on a certain day naturally caused a struggle, but this will be accepted within a decade. The time is approaching when it will not be used either by the rich or the poor.

DR. KENNEDY said that he had hoped to have Dr. Pearce Bailey present at the meeting to give some interesting draft statistics. The general conclusion had been that the feeble-minded were more alcoholic than normal people; but Dr. Bailey's observations showed that the more feeble-minded individuals were the less they drank!