amounts of blood, suggested the persistent diarrhea seen occasionally in tuberculous patients. July 28, he had eight stools of the same character; a careful examination failed to show the presence of entamebas and, as a precautionary measure, a bacteriologic examination for cholera was made, the patient in the meantime being isolated from the other patients.

In the evening of July 25, D. D. was admitted to the same ward; the next day he had one normal stool; on the following day, July 27, he had nine stools, soft, yellow and without blood or mucus. July 28, he had seven stools of the same character; examination of the stools failed to show entamebas; this patient, too, was isolated and examined for the cholera vibrio.

The specimens from R. A. and D. D. were reported by the Bureau of Science on the 31st as positive for the cholera vibrio. In the fear that the infection might spread through the ward with serious consequences, specimens were taken from all the patients in the ward.

August 3, twelve of these patients were reported as positive and were isolated. On the 6th, specimens were taken from the remaining presumably non-infected patients and four new infections were found. On the 8th, no new infections were detected, while on the 10th, five previously negative patients were found to be carriers and were isolated. In all, twenty-three patients were found to harbor the cholera vibrio in a ward of thirty-two patients.

While neither of these patients, R. A. and D. D., developed a single symptom of cholera aside from the diarrhea, it seems reasonable to assume that they represent the mildest manifestations of the disease. Certain it is that their body resistance was at a minimum; the tuberculous patients admitted to the wards of San Lazaro Hospital are almost always *in extremis*, their vitality is extremely low; usually they are the ones refused admission at other hospitals.

In addition to the foregoing cases, one other patient developed symptoms of possible effect from the infection:

C. M., admitted May 22, was usually somewhat constipated; August 3 and 4 he had no stools, on the 5th he had three normal stools, on the 6th, the day he was found to be a carrier, he had four stools, soft and brownish. On the 7th he had twelve stools, for the first time watery; on the 8th, the day of his death, he had three soft yellow stools. This patient developed no symptoms of cholera other than the diarrhea, and died from gradual cessation of respiration. Nearly all of the twenty-three patients found to be infected died of tuberculosis and five of these were examined by necropsy. R. A., the first patient found to be infected, died two days after the detection of the infection. No anatomic evidence of cholera was found at necropsy, the gross pathologic diagnosis being generalized tuberculosis. A culture taken from the small intestine failed to show the presence of the cholera vibrio.

D. D., the second patient found to be infected, died nine days after the detection of the infection. At necropsy, there was found a slight injection of the mucosa of the duodenum, with no other lesion suggestive of cholera. The anatomic diagnosis, as in the previous case, was generalized tuberculosis. The culture taken from the small intestine was positive for the cholera vibrio. Three other patients failed to show gross anatomic evidence of cholera, two of them, however, being positive for vibrio from intestinal culture.

Of nearly 600 vibrio carriers quarantined in San Lazaro, but one patient developed true clinical cholera:

L. Z., a Filipino woman aged 40, admitted to the tuberculosis department July 11, 1914, was allowed to leave the hospital for twenty-four hours, September 6, to visit her relatives. On her return to the wards she was isolated from the other patients and a stool specimen taken for bacteriologic examination; this specimen was reported positive for the cholera vibrio, and she was at once removed to quarantine.

From September 6 to September 21, she was in her usual fair physical condition. September 22, after being a known vibrio carrier for sixteen days, she began having watery stools, six in the first twenty-four hours, but with no other complaint. Twenty-four hours later she was having copious watery stools and began vomiting for the first time. September 24 she complained of chest pains of indefinite character, violent cramps in the skeletal muscles, copious vomiting and frequent painless watery stools, and had complete suppression of urine; she was for the first time confined to bed and was given continuous proctoclysis with no other treatment.

September 24 she had 16 stools and there was no urine.

September 25 she had 17 stools and 390 c.c. of urine.

September 26 she had 9 stools and 960 c.c. of urine.

September 27 she had 7 stools and 860 c.c. of urine.

September 28 she had 3 stools and the urine was normal, the general condition good, and recovery was uneventful.

CONCLUSIONS

1. The epidemic was of about the usual severity.
2. The epidemic was composed of a number of small sporadic outbreaks.
3. The sources of infection were multiple.
4. The slow introduction of solution intravenously is the more beneficial method.
5. Continuous proctoclysis is a valuable aid in treatment.
6. Cholera vibrio carriers are not only a public menace, but are themselves in danger of contracting cholera.

A PSYCHOSIS OF SEVENTEEN YEARS' DURATION WITH RECOVERY *

EDWARD A. STRECKER, M.D.

Assistant Physician to the Pennsylvania Hospital for the Insane
PHILADELPHIA

The following case is unusually interesting, chiefly by virtue of its long duration—almost seventeen years; the presence of a clinical picture commonly associated with dementia; the eventual recovery. The first two features, namely, the duration and the symptom complex, are difficult to explain when viewed in the light of the unexpected and favorable outcome. The possibility of a retrospective diagnosis is also to be considered.

The clinical history is based on the case notes, which are to some extent supplemented and amplified by personal recollections of various members of the patient's family and of the nurse who attended her during many years of her illness.

REPORT OF CASE

Clinical History.—A. R., a woman aged 41, of American parentage, was admitted to the hospital in 1897, in her twenty-fourth year. She was the youngest of seven children. Her oldest sister died insane. The mother, brothers, sisters and the patient herself are all subject to nervous headaches.

Personal History.—The patient attended parochial and later public schools, until her sixteenth year. She was at least an average scholar, and reached the senior grammar grade. In disposition she was cheerful, sociable, and self-sacrificing. She married at 21 and had three children during the following four years. The death of the second child, a month preceding the birth of the third, was said to have made a profound impression on her. The third child was born after an extremely difficult and protracted labor, which, however, was non-instrumental. She sustained severe lacerations.

* Read before the Philadelphia Psychiatric Society at its Annual Meeting at the College of Physicians and Surgeons, Jan. 8, 1915.

tions¹ and following it she was said to have developed "blood poisoning."

When admitted four months later she was much reduced physically—weighed only 70 pounds—and her limbs were so contracted that "her knees touched her chin." (At present the patient has a decided stoop and rounded shoulders.) Her mental state during the first three months at the hospital was marked by restlessness, confusion and incoherence. There was a distinct febrile reaction extending over a period of two months.

Summarizing her mental condition during her hospital residence, it would appear that for the first ten years she was confused and stuporous, completely disoriented, never responded to questions, and was extremely filthy in her habits. The first three years of this period were spent in bed and nourishment was accomplished solely by artificial means. From the tenth to the fifteenth year there were alternating periods of violence and depression. Though she was still an untidy, apparently demented patient, yet there was a decided improvement, for in the thirteenth year she began to converse, but with a tendency to mimicry. To some degree she developed an interest in her surroundings; began to do a little embroidery and succeeded in partially orienting herself. During the past two years there has been some childishness in behavior, with irregular intervals of mild depression, but this cleared up fairly rapidly, and eight months ago she was considered well enough to go home on a trial visit. Since that time she has remained apparently normal.

Present Mental Status.—At present she is a voluntary patient; her mental state would not justify detention on the old commitment papers. She is perfectly clear and alert, neat and tidy in appearance, interested in her environment, and does remarkable embroidery and fancy sewing. Her memory for events which preceded and followed her illness is intact.

Concerning the illness itself, there is an almost complete amnesia for the first ten years; for later occurrences there are here and there fragmentary recollections. There is perhaps some blunting of the general intelligence, which might easily be accounted for by such a long absence and complete dissociation from current events and progress. Our feeling is that this restriction in one field is perhaps no greater than would be noted in any person who for at least ten years had been completely severed from all human intercourse and interests.

Certainly those mental attributes which one would ordinarily expect to show some ill effects and deficiencies after such a long drawn out exhaustive process are not at all affected. Attention, memory, orientation, and the emotional reactions are not disturbed. The residual mental timidity will doubtless be overcome and the narrowing of the conceptive faculty eventually be expanded by the birth of new interests. The reeducation which will result from once more living in a world peopled by normal beings should remove even the traces of her unusual experience.

It must be mentioned that on several recent visits to her home she has, in the opinion of relatives, "not done well." They inform us that unless her wishes were acceded to she would retaliate with a more or less childish attitude and behavior.

The patient herself feels that her family regarded her as childish and inefficient; prevented her doing even the simplest things and constantly distrusted her judgment even in ordinary matters. However, her reactions at both this and a general hospital, where she recently underwent a surgical operation, have been normal; so much so that her stay with us is now entirely a matter of volition and should she definitely ask for a discharge, her request would be granted.

Physical Examination.—At present the patient is well nourished and active; weighing 146 pounds. There is a

double mitral murmur which is well compensated. Slight enlargement and retroversion of the uterus exists, with moderate leukorrhea. A cervical polyp has recently been removed. Both ring fingers show symmetrical contractures and the terminal phalanges cannot be extended. (The patient has been told that these deformities resulted from constantly sitting on her hands.)

Urine: Specific gravity 1.030, many leukocytes, epithelial cells and mucous shreds. Neither albumin nor sugar.

Blood: Red blood cells, 3,495,000; hemoglobin, 89 per cent.; white blood cells, 7,833.

Blood Pressure: Systolic, 118; diastolic, 80; pulse pressure, 38.

Wassermann: Negative.

COMMENT

We have, then, a woman now in early middle life, who, after passing through a tedious mental illness embracing more than one-half of the third, the entire fourth, and extending into the fifth decade of her life, during the greater portion of which she exhibited a symptom complex which led to her being classified as hopelessly demented, seems finally to have experienced complete mental restoration.

DIFFERENTIAL DIAGNOSIS

Before considering the question of attempting to establish a diagnosis at this late date, I would like to digress for a few moments. The classification of mental disease is admittedly inexact and incomplete. That this is so is clearly proved by the fact that new subgroups are constantly being split off from what were formerly believed to be clinical entities. The larger number of cases fall more or less naturally into the existing classification, but there remains a not inconsiderable group which will not fit. These "clinical misfits" are usually appended to some known group and labelled "allied to"; it would perhaps be more desirable to permit them to stand merely as cases presenting a certain group of symptoms with the hope that further clinical investigation will clear up their complexities. The reported case appears to be of this character, and the retrospective diagnosis is gone into merely as a matter of speculative interest.

Manic-Depressive Psychosis.—The ten years during which she was described as being disoriented, confused and stuporous, seem to place her unquestionably outside the manic-depressive group. Any definite emotional reaction—breaking into the monotony of a practically vegetative existence—would certainly have been noted and recorded. Again, her later violence and excitements appear to have been largely purposeless, suggesting Kraepelin's subpraecox group, the periodic type, rather than a frank maniacal phase. The favorable outcome which might be adduced as pointing to an emotional disorder seems to be entirely outweighed by the clinical evidence.

Dementia Praecox.—This classification might perhaps be made to measure up to the symptoms, but could hardly in this case be made to cover the result, namely, recovery. There is still considerable diversity of opinion regarding the essential nature of the pathologic process in praecox. Many alienists question the validity of "recovery" even in a recent case, and insist on some grade of dementia as an implied and necessary requirement for final diagnosis—in fact, they believe that this constitutes the clinical basis of the disease. Dementia is here interpreted in its strictest sense, that is, a definite mental subtraction involving permanent

1. Gynecologic examination three years after admission revealed a perineal laceration from vagina to rectum, and a slight cervical tear.

deterioration in one or more fields. Those who maintain that recovery is not all incompatible with praecox, apply their theory only to the fairly recent case—the one in which the symptom complex is merely highly suggestive, and the diagnosis very largely a matter of individual opinion. In a psychosis of seventeen years' duration, terminating in a recovery, this diagnosis is practically impossible from either point of view.

Infective-Exhaustive Psychosis—Etiology.—There are certain factors which suggest an infective-exhaustive psychosis. A young woman bearing three children within the comparatively short period of four years—the final labor being extremely difficult and protracted and resulting in extensive laceration—must be regarded as being in a state of greatly lowered vitality, an easy victim for some infectious process. Immediately after there was "blood poisoning" (septicemia?). Adding to this pathologic array, the psychic factor of the death of her second child, and considering the fact that we are here dealing with a nervous organization whose resistance is probably less than normal (hereditary?—one sister insane), we would seem to have sufficient physical and psychic trauma to precipitate even an unusually severe mental disturbance. That there was a definite febrile process is clearly evidenced by the clinical chart.

This was originally believed to represent an atypical enteric fever, but we are now inclined to think it was probably the reaction to a puerperal infection. The temperature curve was irregular and the pulse rate comparatively high. The disease may be prolonged for months and the temperature curve is irregular (Osler). Our patient has a double mitral murmur. This, of course, may have been present from childhood or may have developed much later in life—and there may indeed be no connection between it and the supposed septicemic process. It is also perfectly compatible with typhoid fever. However, the following sequence seems to be the most natural and logical one.

1. The lacerated and devitalized pelvic tissues acted as an open portal for bacterial invasion.

2. Bacterial infection did occur and gave rise to a septicemia.

3. The toxins of this disease left a permanent effect on the heart valve. It might be added that our patient did not suffer from any of the diseases of childhood, which are most likely to have valvular disease as a sequel, and that endocardial involvement is perhaps somewhat more frequent in septicemia than in other infections.

Unfortunately we have but meager information relative to our patient's condition at home during the four months' period previous to her hospital admission. We know that she had been restless at night, talking loudly and incoherently, and refusing food. At any rate there seems to have been a more or less definite demarcation between this early active stage of from four to six months' duration, and a later period of stuporous confusion lasting many years. The possibility of an acute confusional insanity, *die akute Verwirrtheit* (amentia) of Kraepelin gradually merging into an exhaustive state, is at least to be thought of. Kraepelin recognizes this possibility. Speaking of acute confusional insanity he says: "In the rarer cases of longer duration (more than two to six months) we must consider the development of an infective-exhaustive state."

SYMPTOM COMPLEX

A review of the later symptom complex presented leaves the impression of confusion and stupor as basic symptomatic elements. On such a foundation the detailed clinical structure can be most naturally erected. Disorientation, physical lethargy, and later purposeless motor activity, refusal of, or rather indifference toward food, idea and word poverty, untidiness, in fact complete neglect of personal needs, all strongly suggest either a permanently injured or a very deeply clouded brain. Similar symptoms are frequently noted in deeply exhausted mental states. Again, lack of, or at best very tardy and partial, insight separates the infective-exhaustive group from psychoses in which there is a definite emotional reaction.

DURATION

The duration in this case is longer than any I have been able to find in the literature. In the recent edition of Kraepelin's *Psychiatry* (Ed. 8, ii), under a general grouping of the infectious insanities, the author further classifies (a) the febrile deliriums; (b) the infectious deliriums; (c) acute confusional insanity, and finally (d) the infective-exhaustive type. Under this last heading he describes a group of cases, varying in severity and merging with one another clinically, due to toxins operating primarily or secondarily, whose effects may be exerted over long periods of time. In the severest cases there is practically a cessation of psychic life. At the onset there may be a confused, depressed mental state with perhaps anxiety, persecutory ideas, feeling of personal unworthiness, visual and auditory hallucinosis. This is succeeded by a clouded mentality embracing inattention, memory loss, poverty of thought, disorientation, and a general blunting in the intellectual spheres.

Though there are wide variations in the clinical pictures, the patients for the greater part are passive rather than active or resistive, are usually bed-ridden, speak rarely, and in fact may be mute, refuse all nourishment and must be fed, neglect their personal needs and are filthy. There are often disturbed obstinate and incoherent periods, and childishness and playfulness may develop. Duration is a matter of many months, but about 50 per cent. show, coincidentally with a gain in body weight, a general mental improvement. They become brighter and more approachable, exhibit awakening interest in their surroundings, begin to occupy themselves. There usually remains, however, a long period during which increased sense of fatigue, defective memory, irritability and emotional uncertainty are manifested. The ultimate outcome is recovery. Corresponding to this picture, Tanzi, in his textbook of mental diseases, classifies the more profound exhaustive states under the name of "*amentia attonita*." The diagnosis rests on a state of "inactive stupor without emotions or memory." The author feels that in some of these cases a differential diagnosis from dementia praecox is impossible during the course of the psychosis, and that the clinical riddle can only be read in the light of the favorable result. The complete emotional indifference which Tanzi regards as the predominating factor is explained by "a suspension of the processes of perception and representation." The perceptions are so deformed and the mental images so contradictory and interfere with each other to such an extent that the psychic processes

become distorted and chaotic. "Feeling remains starved for want of food—that is to say, from lack of images and ideas; the will is paralyzed from want of motives."

Both of these authorities and also other investigators concede to the infective-exhaustive group the possibility of an extremely tedious course. The cases which came under their observation have, however, been a matter of many months rather than of many years.

Without regard to its other features, the case reported, by reason of its unusual duration and the remarkable outcome, seems entitled to rank as a psychiatric curiosity.

4401 Market Street.

USE OF THE DIRECT VISION CYSTOSCOPE WITH WATER DILATATION FOR PROCTOSCOPIC EXAM- INATIONS

E. M. STANTON, M.D.

Fellow, American College of Surgeons

SCHENECTADY, N. Y.

Examination of the rectum and lower sigmoid by some method which permits of visual inspection of their interior is a diagnostic procedure of the first class. Tubular specula have been utilized for such examinations for many years. In the lateral position they permit of the inspection of a limited area of the mucous membrane which presents at the distal end while the instrument is being withdrawn. In a normal case, the tube may usually be introduced for a considerable distance with comparative ease; but the presence of those pathologic conditions most demanding investigation very frequently adds such technical difficulties or even dangers to this procedure as largely to destroy its value.

The introduction of the principle of atmospheric inflation in rectal work by Van Buren and by Kelly was a great advance, and has constituted the essential feature in modern proctoscopy. Under favorable conditions this method allows of very satisfactory examination of the lower bowel. The exaggerated knee-chest position is, however, not only difficult to maintain, but it is so objectionable to most patients that the average surgeon for the latter reason alone fails to make many proctoscopic examinations which he knows should be made. Also, with this method, as with the method first mentioned, serious technical difficulties are often encountered in the presence of those very pathologic conditions most demanding accurate investigation.

The advantages of a satisfactory means of examining the lower bowel with the patient in the ordinary lithotomy or cystoscopic position instead of in the knee-chest position and using an instrument five-sixteenths inch instead of seven-eighths or $1\frac{1}{4}$ inches in diameter are self evident.

During the past two years I have used a simple, direct vision, water medium cystoscope of the Elsner-Braasch type for examinations of the rectum and lower sigmoid, and this method has proved entirely satisfactory in practically all cases. It is as painless as an ordinary enema, even less so, for it is never

necessary to fill the bowel completely with the water. The patient is not kept in an uncomfortable position, and it is not necessary to expose even the genitalia during the examination. The details of the mucosa are much clearer when seen through a homogeneous water medium than they are when the wet and often slimy mucosa is viewed through an air medium, and there is no reflected glare when artificial light is being used.

Particles of mucus and feces do not make the examining medium turbid, and when they are in the line of vision they can be readily washed away by the irrigating fluid. Under the guidance of the eye, and without the possibility of danger, the beak of the cystoscope may be guided past mucous folds or even tumor growths until the entire length (8 inches) of the cystoscope has been introduced. The normal relationships of the bowel are scarcely, or not at all, disturbed. Ulcers, fistulous openings, diverticuli, and papillomatous and other tumor growths may be viewed with the same ease and accuracy as in cystoscopic examinations. The technic is almost exactly the same as for the use of the direct vision cystoscope in bladder work.

The first case in which I employed this method was one of carcinoma involving the rectovaginal septum. In this patient, the usual proctoscopic examination seemed out of the question; but after an examination of the bladder for a suspected involvement, the cystoscope was introduced into the rectum in the hopes of getting a partial view of the involvement of this region. I was surprised to find that the view was quite as good as that obtained in the bladder, that particles of feces did not make the medium turbid, that whenever the bowel became distended the fluid could be withdrawn just as in bladder examinations, and that by guiding the instrument with the eye, the beak could be made to pass one and then another of the mucous folds until the entire length of the cystoscope had been introduced, after which a good view of the bowel could be obtained as far up as the illumination would carry. All of this was accomplished with even less discomfort to the patient than had been caused by the preceding cystoscopic examination.

Since this first experience, the cystoscopic method of examining rectal cases has been used with increasing frequency until, at present in my own work proctoscopy by means of a direct vision cystoscope has come to bear about the same relation to the knee-chest proctoscopy as does cystoscopy by water dilatation to the Kelly method of examining the bladder under atmospheric dilatation.

This method is not intended to supplant the standard procedures now commonly employed in proctoscopy. I believe, however, that it is a valuable addition to the means now usually employed, because it is entirely painless, it does not require undue exposure or a position repugnant to the patient, and in many cases, especially those with some real pathologic condition, the view obtained is actually superior to that procured by any other method.

For this work, the simple, direct vision cystoscope of the Elsner-Braasch type is preferable to the more complicated telescopic instruments. It requires only enough fluid to separate the surfaces to be observed and gives a view free from distortion; there are no lenses to become soiled by fecal matter, and turbidity, even that due to hemorrhage, does not obscure the view if fresh fluid is flowing through the instrument.