A CLINICAL STUDY OF CONFUSIONAL INSANITY

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I N D E X

INTRODUCTION.

In the course of the past six years I have been occupied with the care of the recent admissions to a large public asylum, with a direct admission rate averaging over 160 per annum, including a small proportion of private patients. Among the admissions, patients have from time to time been sent in who presented conditioms of delirium such as are often associated with acute physical illness, cases which might not have been out of place in the wards of a general hospital. Such cases have always had for me a particular interest, and not unnaturally so, for are they not those amongst which are to be found some of our most regrettable fatalities, as well as of our most satisfactory and gratifying recoveries.

While it is generally admitted that in the light of our present knowledge no scientific classification of mental disorders is possible, yet it is necessary for statistical purposes to tabulate our cases in some way. Prior to 1907, the tables of the Commissioners in Lunacy presented only the one heading of "acute delirious mania" under which such cases as I have hinted at could reasonably be placed. In that year, however, the term "confusional insanity" appeared in addition. This led me to inquire what form of mental disorder was implied by this term, and I came to the conclusion that very decided differences of opinion existed among alienists as to the nature of

the conditions that should be placed in this category. If any excuse were needed for inquiring into this question, it might be found in the words of Lugaro, who says in reference to this topic: "here is another morbid picture that requires further elucidation."

I am not, perhaps, in a position to add much to our knowledge of these interesting and not uncommon forms of mental affection, but it has appeared to me desirable, and possibly not without value, to collect my notes--often, I am afraid, incomplete--on cases that presented delirium or confused states as an integral part of the clinical picture. It is the purpose of this Thesis, therefore, to examine the material which has come under my own observation, and to see how far my own experience bears out the views of modern authorities on the vexed question of confusional insanity, as well as to discuss the problems that a consideration of this material suggests.

The cases which will be utilised in this Thesis belong solely to the female sex, comprising, with a few exceptions, direct admissions since January 1907.

The plan which is here adopted is briefly as follows:- in the first chapter the opinions of accepted authorities are outlined and commented upon, and the absence of unanimity in their views is emphasised. In the second chapter personally observed cases are described in considerable detail, and incidental reference is made to others which present points of

interest for my subject: in the third chapter a synthetic study of my cases is given, and in chapter four certain problems presented by a consideration of my material will be discussed. Finally, certain conclusions to which I have been led will be set forth.

I have to thank Dr. Rolleston, my superintendent, for permission to utilize the clinical material in the wards of which I am in charge.

CHAPTER I.

H I S T O R I C A L S U R V E Y.

Conditions similar to those under consideration have been referred to from time to time since the days of Hippocrates, while the mysterious "Brain fever" of which we hear so much in the modern novel may be another recognition of their frequent occurrence. In this Thesis, however, I propose to dwell only upon the views of recent writers, of those who have had at any rate the opportunity of employing the same terminology, which is more or less accepted at present, and who, being contemporaries, may be supposed to have identical knowledge of the work of older authors.

Amongst Continental psychiatrists I shall refer to the opinions of Kraepelin of Munich, Tanzi of Florence, Lugaro of Modena. I shall cite the views of two American specialists, Stewart Paton of Baltimore and White of Washington, passing finally to consider the attitude adopted in my own country by Maurice Craig, Sir Thomas Clouston, W.H.B. Stoddart, Ford Robertson, Lewis Bruce and Sir George Savage.

(1) Of the Continental authorities I shall refer first to Professor Tanzi, whose text-book, as translated by Ford Robertson and Mackenzie, offers in my opinion the most lucid, concise, and clinically helpful account of the condition known variously as amentia (Meynert), Wahnsinn, Verwirrheit, sensorial delirium,

confusional insanity, acute paranoia, exhaustion, psychosis, insanity of toxic origin.

Tanzi disposes of acute delirium, typhomania - call it what you will - by regarding it simply as a severe or fatal form of a large "amentia" group, and considers that Kraepelin's "delirium of collapse" may fairly be considered as belonging to the same category, basing his opinion on the constant symptomatology and mode of termination. His view is that there is a large amentia group, comprising cases which seldom recur, and a small mania group: of the latter nothing further need here be said. He does not classify his cases under numerous sub-divisions, but speaks merely of an amentia attonita, and of amentia of mild or severe degree. He deprecates the use, by some German alienists, of the term "acute paranoia", as applied to certain cases which develop temporary ill-systematised delusions. This observer, further, makes what appears at first sight to be a somewhat unexpected statement, that the disease attacks young persons of normal development, and does not appear to recognise any termination other than recovery or a fatal issue. Fever is not held to be essential: although it is frequently present it is atypical and discontinuous. Remissions and relapses are referred to as not uncommon. Tanzi quotes the opinion of Fuchs, with which he finds himself in agreement, that these, when they occur, are of unfavourable import. He asserts, by way of a final clinical conclusion, that "amentia is a something distinct".

As far as the etiology is concerned, while the possibility cannot be excluded that in certain cases an infection is the determining cause, Tanzi holds that co-existing or more commonly antecedent infective diseases bear only an indirect relation to the development of amentia in some cases. He attributes considerable pathogenic importance to intestinal affections - especially such as are associated with constipation - exhaustion states, and what may be called psychical traumata, e.g. emotional shock or strain, while he admits that in other cases no cause can be discovered.

Tanzi gives a long description of pathological changes sometimes found in cases belonging to this group, but it is obvious that he himself adopts a negative attitude on the matter, for the changes described cannot be said to be either constant or distinctive.

To pass to a consideration of Lugaro's position: Speaking of amentia he says:- "it is evident that we "are dealing with a syndrome rather than with a recog-"nised and separate disease." Lugaro points out how the symptoms, supposed by some to be characteristic, are met with also in pellagrous, uraemic, and true alcoholic amentia, and are present ~~more~~ to a greater or less extent in the course of a variety of chronic diseases, as well as in accessory toxic conditions occurring in general paralysis and senile dementia. He

argues from these facts that complete elimination of the term will probably be effected as our etiological knowledge increases. He believes in the occasional recurrence or even periodicity of the symptoms. He appears to expect, in a typical case, a speedy termination either in recovery or in death; at the same time he appears to recognise that certain cases pass on to a dementia difficult to separate from the terminal stages of dementia praecox.

The only comment I care to make at this stage on the views of these two Italian writers is that, in spite of the apparent divergence of opinion - one holding that the condition is a morbid entity, the other that it is only a syndrome - their attitudes are not essentially in conflict.

(2) With regard to the distinguished German scientist Professor Kraepelin, one must read his clinical lectures from end to end in order to extract his opinions on the class of case we are considering. He speaks of two forms of insanity of exhaustion, (a) his well known "Collapse delirium", (b) what he terms "acute bewilderment" (amentia). I am inclined to think that the former group comprises simply the very severe forms of one and the same disease.

A word as to Kraepelin's views on the insanity of pregnancy and the puerperium will not be out of place here, as many of my own cases come under that denomination. Kraepelin cannot admit a "puerperal insanity", but is of opinion that catatonic states are of very

frequent occurrence, and that they sometimes present close resemblance to the other forms of mental disorder occurring after childbirth as the result of exhaustion influences. He holds that during pregnancy catatonic states, especially the stuporose form, are met with so frequently as to dispel any idea of a simple coincidence. It would appear that he inclines to the belief that sepsis in the puerperium makes for an exhaustion psychosis, while in other puerperal cases the clinical picture is that of catatonia.

(3) Stewart Paton, the American psychiatrist, speaks of psychoses which are "probably in part the "result of an auto-intoxication" (Psychiatry, chap X. p.254). These psychoses he divides into

1. Fever deliria:
2. Acute or collapse delirium:
3. Subacute delirious or confusional states.

He states definitely that by the last of these he means the conditions described by others as amentia, acute confusional insanity, acute hallucinosis, delirious mania, and, finally, Korsakow's symptom-complex. From this it may be fairly implied, I think, that Paton distinguishes between collapse delirium and delirious mania - a distinction not drawn, as far as I am aware, by others, but one which in my opinion may very properly be made, on the clinical picture, even though there be no very definite line of demarcation between them.

Paton says it has been estimated that from 2 to 4% of all mental disorders are referable to an attack of some acute infectious disease, and emphasises the importance of influenza in this connection.

He subdivides fever delirium - perhaps rather unnecessarily - into cases developing before, during, and after the actual fever, but adds that the confusional cases are not essentially different in their clinical manifestations from collapse delirium or amentia (page 256), thus showing plainly he believes there is a connection between these two conditions. It is interesting to note that he is of the opinion that the prognosis in the puerperal cases is more grave than in the febrile and post-febrile cases, i.e. as far as danger to life is concerned: but when a fatal issue does not occur he thinks the case is liable to become chronic.

The febrile cases are in a great majority, and he mentions psychic anaesthesias, paraesthesias, or hyperaesthesias as common in such instances. He quotes the four degrees of alienation described by Kraepelin as occurring in febrile cases.

As for his post-febrile group, it is a little difficult to appreciate his exact position. Apparently the cases are of the type of collapse delirium or of amentia.

In collapse delirium,

40 to 50% are said to have a favourable ending after two or three weeks. I cannot see that he dif-

ferentiates this group in any practical way from the febrile group. The physical symptoms he gives as manifold, but none as specific. He mentions, however, that Pritchard is of a contrary opinion.

In the prodromal period of collapse delirium Paton says that nausea and vomiting may occur, but I have never noted this, in my experience. According to him there is difficulty in articulation in the later stages; this also I have not met with.

About 50% cases of collapse delirium have a fatal termination.

In passing to his third sub-division, Paton says that no sharp line divides it from the preceding group. Some cases undoubtedly pass on to a chronic paranoia which may persist for months or become permanent.

According to the same author, the prime of life is the period at which these disorders are prone to occur. I have no experience of such conditions in the very young, but, on the other hand, I see no reason whatever to throw doubt, as he does, on the reality of cases occurring in the fifth decade, or even later. On another page I shall quote a typical case in a woman of the age of 57.

As a rule, there is a nervous diathesis in individuals who suffer from confusional states: Paton says that one or both of the parents are often found to have shown some neurosis or definite psychosis. I doubt very much, however, whether this, or even a more

restricted statement, can be substantiated. Few normal individuals can boast of a clean bill of family health, when the family history is carefully scrutinised, and I am more and more inclined to believe that this disease, if one may call it so, attacks a large number of persons of good stock and previous sound health, though of course it will claim many victims from amongst the unfit. It is doubtful, I think, if there is any form of mental disorder where an inherited defect is less constantly found.

Paton makes a point of the statement that the onset is seldom so abrupt as would at first sight appear. Among predisposing causes he specifies parturition, gastro-intestinal disorders, the exanthemata, mental and physical shock.

Of the pathology of the condition practically nothing is known.

It will not perhaps be out of place to allude at this point to the view of W.P.Pritchard, whose name is mentioned above.

Pritchard writing of "Delirium Grave" states:- "That the disease is a very uncommon one, is the only "detail in which there is absolute unanimity of opin- "ion".

He quotes Coxton's definition as"a very acute febrile disease of the Brain, usually fatal, attended by wild delirium, hallucinations and great disturbance of motor functions."

Pritchard is led to the conclusion that there are two groups, one of infectious or traumatic origin, the other due to non-toxic conditions, each with a distinct pathology.

(4) W. White of Washington deals with the conditions under consideration in a chapter under the title Infection - Exhaustion Psychoses. He combines these two groups owing to the similarity in their clinical picture and because they are, he says, found so commonly in conjunction with one another, and have probably a not dissimilar etiology. He recalls how it has been demonstrated that fatigue symptoms are of toxaemic origin.

In his next paragraph White attempts to clear the air, so to speak, by offering a definition of the terms "confusion" and "delirium", in the following words.

"By confusion is meant a state of disorientation "in all the three spheres, temporal, spatial and per-"sonal."

"By delirium is meant a confused and cloudy state "of consciousness, associated with, and symptomatic of "fever". (chap. XIV. p.205. - Outlines of Psychiatry.)

In my opinion, while I welcome the attempt to establish a fixed meaning for any terms in common use among alienists, I am unable to accept strictly the

above definitions, though they may apply generally.

Patients who are totally unaware of the season of the year, or of their whereabouts, may be aware of their own identity,and on the other hand I have several times seen patients (at least one case is described later) who have no rise in temperature whatever, in a condition not to be distinguished from febrile delirium.

The present writer describes, just as Paton does, post-febrile, febrile and pre-febrile Psychoses, but the symptoms of each are not at all sharply defined.

He considers that the Exhaustion Psychosis which, as he points out, may be also post-febrile, may result from prolonged exhaustion from any cause. In this category it would appear he places Collapse Delirium and Acute Hallucinatory Confusion, a less severe psychosis of the same general nature.

Of all the cases, mild and severe,of collapse delirium, he estimates that 50% recover, but where the boundary line ~~can~~ is to be drawn as between severe and less severe, or between the less severe and the next group of acute hallucinatory cases, he does not say.

It will be noted that the inference may be made from this chapter, that White does not appear to think collapse delirium to be due to a directly infective cause.

Amongst his auto-Toxic Psychoses, discussed in the following chapter, he points out how acute confusion may occur in uraemic, gastro-intestinal and alco-

holic cases. In an earlier chapter, he refers to the large number of cases associated with childbirth, that are of the Infective Exhaustion type, but the whole subject he dismisses very briefly.

(5) Maurice Craig speaks of two exhaustion psychoses, - neurasthenia, and acute hallucinatory insanity; in the last of these he places Kraepelin's collapse delirium and acute confusional insanity. He is another advocate of the view that the victims of these disorders are of neurotic heredity. Fatal termination to the illness he says is unusual.

He makes an interesting and uncommon contribution to the suggested etiology by offering the opinion that one of the causes is deficiency in quantity and deterioration in quality of the blood acting on an unstable brain. Further, he attaches no little importance to great variations in the blood pressure as a cause of the disease. In my opinion, however, any such variations may well be of the nature of effect, rather than of cause.

(6) In Chapter XVIII of his "Unsoundness of Mind", Clouston says that conditions of mental stupor and confusion constitute in some cases a distinct class of mental unsoundness, and he then proceeds to give one somewhat lengthy definition to cover the two terms, confusion and stupor. On a subsequent page he expresses the opinion that confusional states and stupor

are essentially of the same character, and due to the same causes, one being merely an aggravated variety of the other. 50% of cases are found, he thinks, to suffer from amnesia: such cases he describes as anergic cases, following Hayes Newington in this connection. They are curable cases, he adds, occurring in young persons of bad heredity. The remaining 50% are in his opinion mostly cases of melancholia (melancholia attonita), and need not concern us further.

He next mentions a group of cases falling short of stupor, where the symptoms are confusion, disorientation, slowness of thought and reaction. (These correspond to what many call mild cases of amentia.) He refers to the toxic confusional states of other authors, but does not express any critical opinion about them, merely stating that the chapters are instructive. Speaking of Maurice Craig's views, however, he suggests that the use of the term "exhaustion" in connection with these states is misleading, and indicates that something more than exhaustion or fatigue is needed to produce the phenomena. They should preferably be described as toxic. Yet in his next sentence he says that a few cases may be caused by terrible mental stress. He thinks the patients often show stigmata of degeneration.

I cannot avoid feeling that to attempt to criticise or even to differ from my old teacher savours of presumption, but to one who accepts, as I do, the con-

ception of dementia praecox so ably portrayed by Kraepelin, this whole chapter of Sir Thomas Clouston's book, from which I have been quoting, simply suggests a certain degree of failure to differentiate between two widely differing conditions. To endeavour to define stupor and confusion together appears to me to essay the impossible. No allowance is made for the occurrence of states of excitement and motor restlessness with confusion. Clouston's 50% are diagnosed, it would seem, simply by results - an undesirable method of procedure. Certainly to a very small proportion only of the confusional states mentioned by the authors I have cited, could his definition apply. The stigmata of degeneration he finds so often, suggest to me rather dementia praecox than anything my experience has led me to expect to find in confusional cases. It is interesting, further, to note that Clouston cannot accept "exhaustion" as a direct cause, yet admits mental shock as a sufficient etiological factor to produce a condition otherwise requiring, in his opinion, a toxic cause.

(7) W.H.B.Stoddart, in his "Mind and its Disorders" treats of all the cases of the kind with which I am now dealing in one chapter entitled "The Exhaustion Psychosis (acute Confusional Insanity)".

He says that these conditions arise in predisposed individuals from the effect of various toxins, includ-

ing such poisons as are produced autogenetically by excess of nerve destruction over nerve repair. He regards peripheral anaesthesia as a constant symptom, invariably present at some or other stage of the patient's illness, except in some few post-febrile cases - a view that is not held by any other author with whose work I am acquainted. I have paid special attention to this matter of peripheral analgesia in a number of cases, to which reference will be made in another part of this Thesis. Stoddart describes five varieties of confusional states, one of which is Kraepelin's collapse delirium, the remainder being distinguished by differences in mental symptoms.

He alludes to the difficulty in diagnosing between certain confusional cases and cases of catatonic dementia praecox when speech is suppressed - a difficulty illustrated by one or two of my own cases. 10% is the figure he gives as representing the proportion of patients who become demented, and he puts forward the view that depth of dissolution is the best guide to prognosis.

(8) Ford Robertson in a most interesting Chapter on "Acute Insanity" deals with much that has a very direct bearing on my subject. He says that"in the "pathogenesis of the acute insanities hereditary pre-"disposition to mental disease is certainly a highly "important factor - perhaps even a constant and essen-"tial one."

Quoting Macpherson he says this author justly remarks "The toxic basis of all forms of Insanity is a "presumption for which there is fairly good foundation, "but no direct proof."

Speaking of the bacteriological researches by Ceni, Bianchi, Piccinino and others in connection with acute cases he says:- "There is no absolute proof "that these organisms have in any instance a definite "etiological relationship to this disease, but there "are many grounds for believing that they have such a "relationship in certain cases."

He makes a passing reference to the good results obtained by Marro after the use of lavage.

Four of the nine conclusions of D'Abundo and Agostini, which authors he quotes, may be restated here.

1. Infections and intoxications of the nervous system favour the development of secondary intoxications which feed, reinforce and complicate the Clinical phenomena, and together produce the forms of disease due to poly-intoxication.

2. Mental Confusion is merely the most frequent clinical type of infective toxic action.

3. Acute Delirium may be regarded as a clinical manifestation caused by infective-toxic action.

4. The clinical manifestations of infections and intoxications of the nervous system are the resultant of more or less profound nutrituve disturbances which

at certain stages are capable of arrest, even when the symptomatology is such as to make us doubt the possibility of recovery.

Continuing, he advances the hypothesis of a special vulnerability of nerve cell of an inherent individual character in these toxic infective cases, but even so is bound to admit how far we are from having a satisfactory pathology of acute insanity.

He dissociates himself from the view, held by many, that in acute delirious mania the recognizable changes are chiefly in the blood vessels and perivascular spaces, holding on the contrary that it is in the cortical nerve cells that the most profound changes are found.

(9) I pass on to consider the work of Lewis Bruce, who describes two large classes of Insanity, the one of toxic and the other of non-toxic origin.

His methods of investigating his cases from the clinical standpoint, by which he seeks to emphasize their purely medical aspect, is one that appeals very much to me and particularly so in regard to confusional states.

But when one studies the classification which his researches have led him to adopt, and reads the description of the various conditions denoted in it, one is struck by the almost unique position which he has taken up.

Whereas, as we have seen, other authors speak of the Exhaustion Psychosis (e.g. Stoddart , Craig), the "Infective Exhaustion group" (White), or refer to the cases of Amentia caused by exhaustive states (Tanzi), and so on, the author whom we are considering at present, heads his list of non-toxic psychoses with "Exhaustive Insanity". This condition follows, he says, prolonged lactation, influenza, fevers or other infective conditions and prolonged mental or physical strain. The symptoms attached to this disorder by Bruce vary very materially from those associated by others with conditions produced by the same causes and called by a similar name, though they overlap in some details. For example incoherence, he tells us, is never present in his cases, yet it is a symptom most others insist upon in exhaustive states. He says the patients are not disorientated, and their memory for recent and past events is good.

He says "mentally there is always more or less "confusion". (p.52.)

And herein lies the difficulty confronting the reader; what is the exact meaning he attaches to the word "confusion"?

Bruce groups his Insanities of Toxic origin according to the nature of the supposed toxin. Thus (a) where the Toxin is of metabolic origin. (b) where it is probably of bacterial origin.

It is of interest here to consider those condi-

tions which he holds to be of bacterial origin. They are what he calls

1. "Excited melancholia", "in which mental confu-
"sion is not a prominent symptom";
2. Mania with confusion;
3. Excitement without confusion ("Folie Circulaire");
4. Some cases of puerperal Insanity;
5. Hebephrenia;
6. Katatonia;
7. Alcoholic, or drug insanities.

Of these only 1,2,4 and 7 need I think concern us at the moment.

1. The distinction here seems based on a prevailing emotional tone and a uniformly bad prognosis. Some cases are confused and might very well, it appears to me, be cases of Amentia.

2. We here find that Bruce will have nothing to do with "Typho-mania" or "delirious mania". He considers these terms to be misnomers, for he says:-
"I have seen all the toxic Insanities, whether of meta-
"bolic or bacterial origin, terminate in typhoid or
"delirious mania, an almost invariably fatal compli-
"cation."

This observation is of value, however, for we may infer from it that he does recognize delirious states, and holds them to be of toxic origin, in at any rate a large number of cases.

He says of the condition of acute toxaemia with maniacal excitement, that the physical symptoms alone point to the fact that the disease is the same; whether it lasts for a fortnight or for a life time; whether it recurs or not; whether the symptoms are severe or slight; "its duration, severity and recur-"rence" being "merely phases of individual resistance "to the toxaemia which causes it."

He further says that this disease may occur at any age; that the onset is gradual as a rule; that there is usually slight fever at first; that the patients affected"are by no means weaklings"; that the menstrual function is not suppressed, but may be irregular; that"there is general loss of sensibility to heat and pain, but that the sense of touch is acute."

He finds a leucocytosis which is I think his diagnostic symptom for all his insanities of bacterial origin.

With regard to the course of the disease, he thinks that most patients who recover do so within 6 months; that a sudden recovery is of unfavourable import. A number pass on, he states, to a chronic condition in which excitement, destructiveness or erotic behaviour appears, and a very small proportion die in acute delirium.

Bruce thinks that All the puerperal cases with excitement are due to toxic causes, even when there is no obvious uterine infection.

This group, then, is the nearest to the Amentia of other writers.

10. Savage

I only propose to quote a few of the opinions of this well known pyschiatrist.

His attitude is summarised in the following sentence:-

"In my opinion there is no specific disease of the Brain due to fevers". Referring to toxic cases he says:- "There is usually marked neurotic inheritance." Speaking of acute delirious mania, he states that the outbreak is often sudden, a view not by any means unanimously held. He declares the fever in these cases as a rule reaches 100°-102°F. This is higher than my experience has led me to expect, except when there is some known septic process. He has no explanation of the fever to offer. He further tells us that he has never seen acute delirious mania twice in the same individual. Many cases pass on to chronic weak-mindedness with incoherence. The post mortem signs he finds as negative or contradictory.

CHAP. II.

Cases observed by myself.

I have found it not a little difficult to come to a conclusion as to the best method of classifying these cases.

An etiological classification would commend itself, but so much has yet to be learnt with regard to the causation of these confused mental states that I could hardly get further than the following:-

a. Cases of unknown origin.

b. Cases ~~of~~ apparently of definitely toxic origin.

c. Cases of probably toxic origin.

d. "Shock" cases.

I might have attempted to arrange my cases accord--ing to their results, but such a method is unscientific and if possible to be avoided. On the whole it seems to me that an arrangement according to the severity of the symptoms, both somatic and psychical, will best serve my purpose. I shall therefore present them in the following groups:-

(1). Extreme cases.

(2). Well marked cases.

(3). Mild cases.

estimating each case on my own summing up of its feat--ures as a whole.

I shall further briefly quote, either in this chap--ter or in the subsequent pages, some of my cases which afford contrasts to the above, or which offer in symptomatology or causation evidence of a close alliance with them, and I shall also quote some cases in which the diagnosis must, I think, remain in doubt, for the

present at any rate.

It will be noted that a fatal issue occurred in one of the cases in the mild group, but the notes of the case will explain this apparent contradiction.

I. Extreme cases. Case 1.

F. . . . T. . . Aet 26, Single, a shop assistant, admitted 29th December 1906. First attack, duration 12 days.

History of present illness. For about three months she had been gradually losing her cheerful temper-ament and had shewn irritability over trifles, but was occupied as usual until the 15th December when she came home in the evening with an abscess in her mouth. This "broke and almost at the same time she became insane". The Certificate given on the 28th December at the Infirmary says that she was restless, excitable, made incoherent noises, destroyed her clothing, was resistive and would not answer any questions.

State on admission. She was obviously seriously ill, the pulse rate 145, but the temperature normal, her tongue was furred and cracked, the teeth were covered with sordes. Knee jerks present, not exagg-erated, pupil reaction normal. There was a slight oedema of the feet and legs and some erythema of the legs only: she was much constipated.

Mental condition. She was in a state of delirium, completely disorientated and taking no notice of questions. She muttered letters of the alphabet and was quite incoherent: motor restlessness was very marked and she would toss about in bed heedless that she exposed herself. The calls of nature

were unheeded. Food was administered with a spoon but only with difficulty.

Jan. 2. A brief syncope attack today.

Jan. 3. Condition very grave- the respirations are curious, now in quick catches, now in long drawn breaths. She is restless in an aimless fashion, and makes peculiar whistling noises: there is no fever, indeed it is most difficult to keep her warm. A small quantity of urine obtained by catheter was neutral or faintly acid in reaction and did not con--tain albumen

For a brief moment today she shewed signs of com--prehension.

Jan. 4. Warmer but the pulse extremely poor. About 7 p.m. she became suddenly worse and died.

Post mortem appearances. On close inspection of the mouth I found a small bead of pus in relation to the upper outer incisor tooth. When the mucous membrane was reflected a small area of necrosis of the jaw bone was discovered.

No other macroscopic appearances were found which would throw any light on this curious case, save that an injection of the serous membranes, of the heart valves and of the lining of the aorta, with a somewhat fatty condition of liver and kidneys would support the view that the morbid process had been of a septicaemic nature.

Case 2.

V....D.... Aet 34, Single, a cinematograph usher, admitted on March 10th 1911. Her maternal grand--father died "suddenly of congestion of the Brain"; her sister is in Bethlem Asylum.

Her previous history offered nothing of apparent relevance. The history of present illness was very meagre, but she appears to have worried a little over her work and to have attempted to strangle her--self with a tape. She was removed to the Infirmary at once and there certified on March 7th. The certificate states that she was very peculiar and excitable, talking in a disconnected way or suddenly relapsing into silence, very restless, kneeling before pictures and praying, giving trouble with her food, making mistakes in identity, and being unable to understand why she was there.

On admission to the Asylum three days later she was found to be fairly nourished, temp: 97.6°, pulse 78, pupils dilated, knee jerks present, pupil re--actions normal. She looked obviously ill, her tongue was furred and dry, her face flushed, and she was much constipated. The record of the exam--ination of the urine has unfortunately been mislaid.

Mental condition. If any affective tone could be said to prevail, she was perhaps depressed. She muttered a few intelligible words, but paid little attention to what was said to her, or to what took place around her. There was a slight tendency to refuse food and at times she disregarded the calls of nature: she was a little resistive and restless, there appeared to be some, but not general, peripheral anaesthesia.

On March 17th I noted her condition as follows:-

"She lies in bed with eyes widely opened, giving the "impression that she sees imaginary objects; the "pulse is rapid and her whole condition approaches

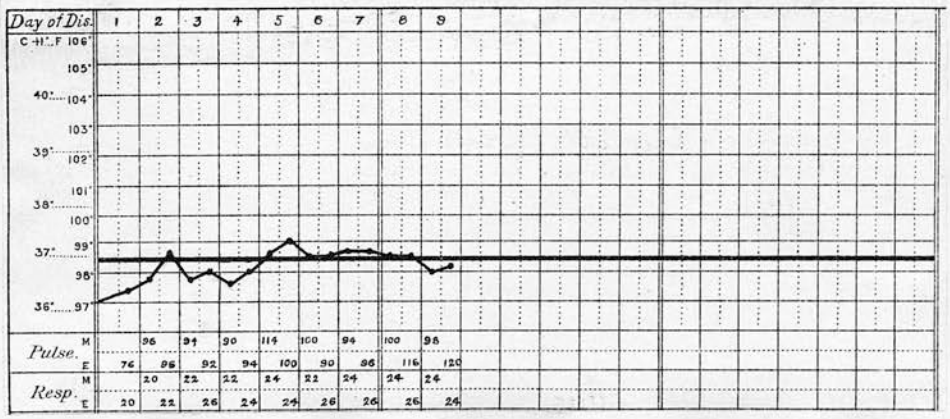
"as what is usually known as "Typhoid" state. She "is spoon fed and is taking nourishment better- she "is sleepless".

On the 18th she appeared to be a trifle better, but during the night, while her back was being attended to, she suddenly became worse and died almost immediately.

The post mortem findings were as follows:- Apart from slight congestion of the pia-arachnoid no abnormal macroscopic change was noted in the central nervous system. There was congestion of liver, kidneys and spleen, which latter organ was enlarged, and I noted that a small area of the base of the right lung was much congested and suggested the possibility of an incipient pneumonia.

A chart is appended shewing her pulse and respira--tion and this, with other charts, will be referred to in the following chapter.

The whole course of the disease it will be noted did not exceed 14 days.



Case 3.

E....E....W.... Aet.26, Single, a machinist, admitted 24th January 1910.

History. As a child she had infrequent convulsions up to the age of 6 years. "Kidney disease" at age of 12 and "Rheumatism" when aged 17. Family history good.

On the 13th January, she became strange, silent, absent minded, her marriage was postponed, and this upset her and she fancied that she had done something dreadful.

The certificate stated that she refused food, would take no notice of questions and would do nothing for herself. She appeared as if in trouble and had a small wound on the head, apparently self-inflicted.

State on admission. Poorly nourished, features pinched, complexion pale, tongue furred, temp: 97°., pulse 118: she was constipated. Her gait, movements and speech were very suggestive of Chorea. The knee jerks were brisk and the pupil reactions normal: the urine contained albumen.

Mental condition. Consciousness was clouded but she would understand and would sometimes obey simple directions. Conversation was refused: she was restless, passed her urine and motions in the bed, and had to be spoon fed.

Feby 6th. Very restless, choreiform movements are pronounced, slight fever, a bruit in the pulmonary area.

March 8th. For a time she improved, but is now somewhat worse again: she has been destructive, is still feverish: the albuminuria persists.

March 14th. Steadily getting worse: she is completely disorientated and consciousness may be said to be

almost in abeyance. Her physical condition has become alarming and she has numerous boils on her hips and legs: the urine reduces fehling.

April 14th. When recovery appeared almost hopeless she becan to improve, and this very rapidly in every respect.

May 14th. All choreiform movements ceased; conduct rational; is putting on flesh. She is now convalescent.

There is complete amnesia for the events of her illness, which is a hiatus in her life.

This patient, although a trifle childish for her age, went home and has since married.

Case 2.

E....G.... Aet 40, Married, Admitted May 12th 1906.

1st attack: duration 1 week.

History. Her Father died of Brights disease; there was no neuropathic heredity.

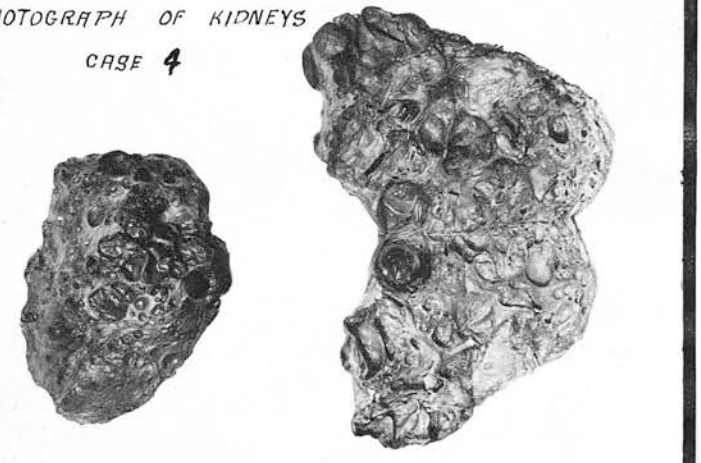
She had not menstruated for five years and had ex-hibited some slight change in her habits for the past four and a half years, her disposition being somewhat gloomy but she only became mentally deranged a few days before leaving home,- she attempted to get out of the window and shewed violence.

The Certificate (May 11th) states that she had a wild and vacant expression, rambled incoherently in broken sentences, was delirious at times, refused food and said her medicine was poison.

State on admission. A sparely nourished woman, looking extremely ill, her features pinched and wearing an expression of distress: complexion pale, slight cyanosis of finger tips. The tongue was dry and coated with a

PHOTOGRAPH OF KIDNEYS

CASE 4



brown crust. Temperature 97. F., pulse 90 - 115.

The heart was enlarged. Knee jerks brisk, and a pseudo ankle clonus was present: the urine contained albumen.

Mental condition. She was restless, making apparently aimless gesticulations, obtained no sleep, refused food in a determined manner and would take no notice of questions. Hallucinations could only be inferred from her behaviour and she appeared to be completely disorientated. If any emotional tone prevailed it was one of acute distress. The refusal of food was not accompanied by any suggestion that she was antagonistic to us.

May 14th. Tube feeding had been employed since admission, but she became so collapsed that this was abandoned today.

May 15th. She rallied somewhat after the exhibition of stimulants and took a little nourishment from a spoon. The pulse was imperceptible, however, and the lungs were becoming congested.

May 16th. She died in the early hours of the morning.

The post mortem examination shewed the most in--tense degree of cystic degeneration of the kidneys, the cortex being practically all destroyed.

The cysts contained fluid in some instances clear, in others of a reddish brown turbid nature. The right and left kidneys weighed 520 and 610 grammes respectively.

The surface of the liver was studded with a few small cysts, and in its substance were a few areas about $\frac{3}{4}$" to 1" in diameter of varying thickness, possibly of the nature of infarcts.

No other naked eye changes of note were detected.

Case 5.

A....P.... Aet 30., Married, Admitted September 15th 1906: 1st attack, duration one week.

History. "Mother's Brother died in an Asylum", Personal history uneventful prior to the present illness, which came on a week before admission— apparently the result of a "Bad throat" and worry over the sudden illness of her Mother.

The certificate stated that she was wildly gest--iculating, throwing herself about, would not stay in bed, rambled incoherently, refused food, was dirty in her habits and exposed herself.

State on admission. Sparely nourished, obviously acutely ill: temperature 98°. pulse 134. Her features pinched, expression variable: the tongue parched and cracked, the teeth covered with sordes and there was bad pyorrhoea,- she had to be carried to bed.

Mental state. This was one of muttering delirium accompanied by aimless gesticulations, restless move--ments and at times unreasoning violence. It was obvious that she had vivid auditory and visual hallu--cinations: she took no notice of questions and was oblivious of her surroundings. She was careless of the calls of nature.

September 22nd. Her temperature has risen sharply to 101. 6°. She is much less restless, but is in--stinctively resistive and exhibits some rigidity.

September 26th. The physical rather than the mental features of her disorder are now prominent: she lies quietly in bed, the fever runs an irregular course between 99° and 101°.

September 28th. She becomes steadily worse, the pulse is rapid and shallow, there are drenching sweats,- a positive "Widal" reaction was reported.

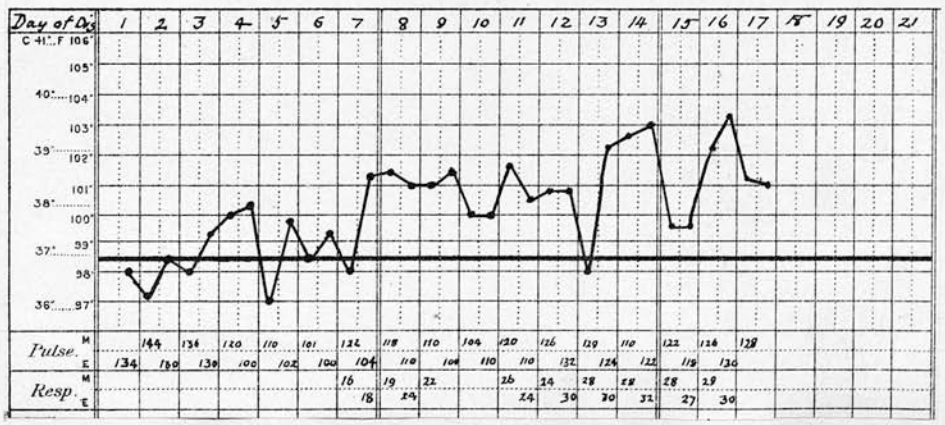
September 29th. A slight purulent discharge was detected escaping from the right ear, the drum is found to be perforated, thickened and inflamed.
October 1st. She became rapidly worse and died.

The post mortem examination shewed nothing to sug--gest the presence of typhoid fever, which indeed has not been expected but merely looked for as a precaut--ionary measure.

The petrous temporal bone was chiselled away and a small flake of pus some $\frac{5}{8}$" long was discovered in the internal ear on the right side. The left side was healthy.

The spleen and kidneys were congested, though less so than I had expected,- the liver shewed fatty degen--eration. The lining of the bowel was deeply congested, but only in some scattered areas. The mesenteric glands were enlarged, being of the size of a small bean. The stomach shewed some minute submucous haemorrhage.

These were the only naked eye changes that called for comment.



Case 6.

A...E...C... Aet 46, married, wife of a post office Sorter: admitted 1st April 1911, 1st attack, duration a few days.

History. No hereditary taint could be traced; child--hood and early adult life were uneventful, but for the fact that she had Rheumatic Fever three times.

At the age of 27 she developed Epilepsy, fits occurring from that time with an average frequency of one per month. These fits were of moderate severity and she soon recovered from their effect and was a useful intelligent woman in the interim.

The present illness was ushered in by a fit, after which she became peculiar and struck her husband, to whom she was ordinarily much attached.

The certificate stated that her usually cheerful manner had become changed, that she was morose, refused to speak, stared vacantly before her and was apparently unable to recognise those whom she knew well: nourishment was administered with difficulty.

State on admission. A sparely nourished woman, expres--sion wild, complexion unhealthy, temp: 98. 8° F., pulse rapid but difficult to count owing to her extreme restlessness.

She had a definite glossitis. Knee jerks present, pupil reactions normal. Urine specific gravity 1026, fairly acid, contains albumen.

Mental condition. She was in a condition of delirium, was restless and aimlessly resistive, had apparently no knowledge of time or place, paid no attention to questions, and consciousness was profoundly obscured; the calls of nature passed unheeded. It appeared

probable from her conduct she had hallucinations of sight and hearing at times. She would shout loudly at nothing from time to time, and occasionally utter monosyllabic noises; she was completely incoherent.

August 12th. Destructive to self and to clothing, will bite like a wild animal; pulls out her hair and picks her skin.

August 22nd. Is now rapidly improving, lies quietly in bed but is still irrational and incoherent.

September 18th. Now that one can examine her satis--factorily it is noted that she presents well defined symptoms of Rayuaud's disease, the tip of the right forefinger has entirely disappeared and the other fingers and toes are affected in a less severe degree.

It would appear from close enquiry that the Raynaud's disease made its appearance much about the same time as the epilepsy commenced.

February 7th, 1912. She steadily improved and revealed herself as a pleasant rather simple minded woman with the epileptic temperament. From time to time, usually every month, she had one or two fits after which she was a little ill tempered, nothing more.

During these months the attacks of cyanosis recurred with increasing severity and frequency.

She now, without any visible reason (no fit for example), relapsed into a profoundly confused state very similar to that from which she suffered on admission, and I therefore need not describe it again in detail.

February 21st. Consciousness became more and more clouded till finally she lay helpless in bed. She

would open her lips when the spoon touched them and this was the only sign of intelligence she offered. The clinical picture was now one of ex--treme exhaustion with suspension of all mental processes.

February 25rd. A brief terminal lobar pneumonia closed the scene, and she died today.

Case 7.

P...L...B... Aet 30, married, housewife, admitted 16th September 1907.

Previous history, no insane heredity.

History of present illness. She was confined on the 21st July 1907 and some slight puerperal sepsis followed, but she was mentally well till the 4th day, when she began to rave, threw things at her husband, declared her baby was dead (which was not the case) and that she ought to be drowned. She obtained no sleep, refused food and took no notice of her child. When transferred to the Infirmary she scarcely spoke, except to say that she must get out by the window and that there were beetles in her bed.

Condition on admission. A spare woman, weight 6 st: 13 lbs:, temp: 97. 2.° pulse 98., knee jerks very sluggish. The breath was very offensive: she had severe pyorrhoea alveolaris, pus filling the mouth, and a furred tongue. She was just able to walk without assistance and looked decidedly ill.

On the second day after admission it was necessary to feed her by nasal tube.

Her mental condition was as follows:- Consciousness

was clouded, she took little notice of questions, spoke seldom and with considerable incoherence= she appeared to have no proper conception of her surroun--dings, it was obvious that she had vivid halluci--nations of sight, but auditory hallucinations may or may not have been present. There was some emot--ional distress, and the prevailing tone was one of depression. It might be inferred from her conduct that she thought her food was poisoned.

By the 26th her condition had become very grave, the pulse was soft and rapid, her temperature was raised and irregular. Copious sweats suggested a septic condition, but the only obvious septic focus lay in the gums.

Tube feeding was necessary as a routine and she was passively resistive,- a general tremulousness of the facial muscles was a marked symptom.

By October 2nd there was a decided improvement, the pulse rate only 100 and the fever had subsided.

It so happened that the improvement was synchronous with the administration of anti-streptococcic serum, but this may or may not have been a coincidence.

Pus was still freely escaping from the mouth: saliv--ation was excessive.

October 8th. Still tube fed but looking a little stronger, pulse 90.

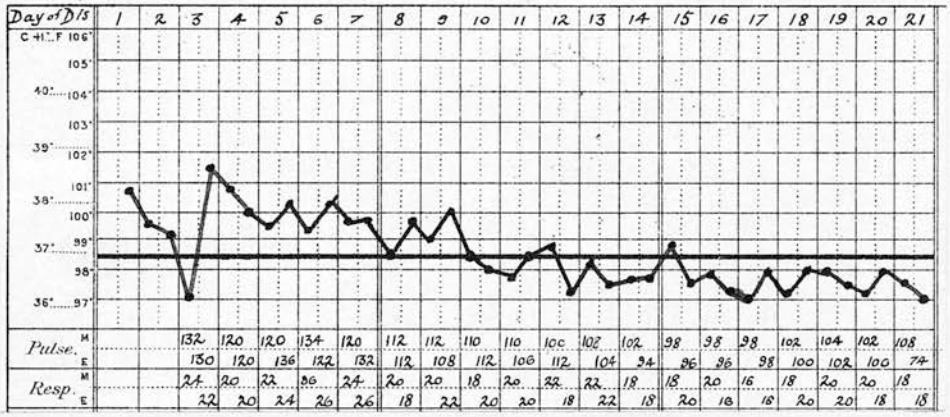
November 8th. Steady physical progress during past few weeks, taking food well, up and about, appears dazed and takes little notice of questions.

December 5th. Still no material mental progress.

January 24th. Decided physical and mental improvement her memory is good except for the events of her

illness.

February 21. Discharged recovered having gained over a stone in spite of the critical illness through which she had passed.



Case 8.

S...A... Aet 41, married, wife of an Asylum Attendant, occupied as a Clerk and School Board Teacher. Admitted 11th February 1912.

History. There was some idea that a cousin on the Father's side had died in an Asylum, but nothing else of an unsatisfactory nature could be traced in her antecedents. She herself had been a cheerful woman of good intelligence, who had always enjoyed excellent health; one healthy child.

She contracted influenza and was ill for about a month, after which she returned to her work, but in two days broke down completely. She felt she was going out of her mind, and attempted to jump out of the window, and in consequence she was certified, the certificate stating that she was very restless, trying to destroy herself and that she saw visions and heard imaginary voices.

State on admission. A finely developed and well nour-
-ished woman with good features. Temp. 98° F. pulse
84. resp: 22.; she looked ill but not profoundly
so: she was constipated, the tongue was furred.
Knee jerks brisk and pupils reactions normal: there
was extensive analgesia of face, arms and legs. No
other signs of bodily disease were noted.

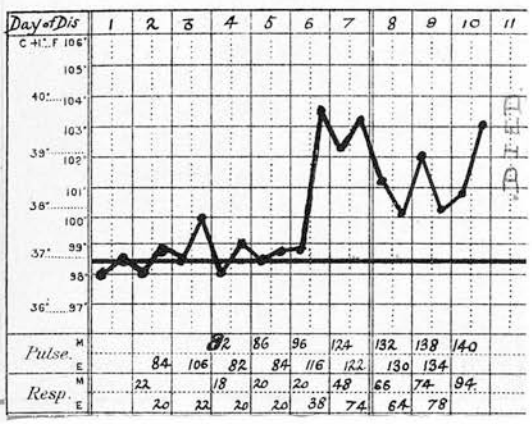
Mental condition. She was delirious, apparently totally
oblivious of her surroundings, had evidently hallu-
-cinations of sight and hearing, spoke incoherently
but took no notice of questions. She was restless,
resistive, noisy at times and unmindful of the
calls of nature,- a general tone of excitement
prevailed.

February 15th. This evening (the third day after
admission) her temperature rose to 100°, but her
condition was not such as to cause alarm, though
she was evidently seriously ill. There was very
slight fever on the two following evenings, but on
the evening of the 16th the temperature rose sharply
to 105°. (N.B. The night and morning chart does not
shew the highest points reached on this and on the
following days). The lungs were clear at the time.

February 17th. The knee jerks were now absent, the
respiration rate is increased and pneumonia is
suspected, though no definite physical signs can
be detected for she does not cough or expectorate.
There is marked neck rigidity, slight tâche
cérébrale, vomiting, symptoms suggesting a meningitis,
Kernig's sign not definite.

February 18th. She has a definite pneumonia: there
is hypotonia, except in the neck which is still rigid.

February 19th. Sweating; she is losing ground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rapidly but appeared to have moments of clearer consciousness, with some appreciation of her con--dition.

February 20th. Died this morning.

Post mortem examination shewed a right basal pneumonia of recent date. The pia-arachnoid was intensely congested; there was no turbidity of the fluid.

Photographs of sections of the cortex in this case are introduced in a subsequent chapter.

An attempt to cultivate organisms from the cerebro-spinal fluid obtained during life by lumbar puncture met with a negative result.

After death a bacillus, having the characters of the influenza bacillus, was cultivated from the lung and brain.

II. WELL MARKED CASES.

Case 9. admitted 4 Mar. 1912. 9.2

M...K... Aet 57, married, of good heredity, cheerful temperament and good mental attainments. Her husband states that she had been rather nervous and unable to bear any worry for the past three months, that for three weeks she had been sleepless and for one week she had shewn definite mental de--rangement.

State on admission. A fairly nourished woman with flushed face, looking ill and evidently in a state of mild delirium. Temp: 99° to 100°. F., dry tongue, teeth covered with sordes, vessels somewhat thick--ened, pulse of poor quality, 86. Knee jerks

sluggish but pupil reactions normal. She was much constipated: the urine contains albumen and a trace of acetone

Mental condition. She was delirious and though giving her name correctly was unable to give any connected account of herself. She was disorientated in time and space, e.g.:- when asked how long she had been here, she replied "Oh goodness knows whirling and "whirling on trolleys, and in answer to the question what is this place? replied variously "the Courts "of Justice I suppose", "the Council place at Bushey" She rambled incoherently and in disjointed sentences shewing a certain suggestibility as I spoke to her, e.g.:- "they keep on saying things, I can walk better "than when I came in, he said I was a man and that "he was a woman and that is a lie. You can keep "your abode of love" and so on.

She mistook the identity of those around her, speaking for instance of a patient in a neighbouring bed as her Niece.

Hallucinations of sight and hearing were manifest, she saw blood and water on the ceiling and heard imaginary conversations.

Her memory was much impaired but she could give the age of her son correctly.

She could appreciate fairly well momentarily what was said to her, but she could not retain any idea for long, and her sentences tended to tail away into nothing and peculiar words to appear, for example:- "Then I shall be beggarless", suggesting fatigue and inability to concentrate. She spoke in a very matter of fact tome reminding me of the pseudo rational con-

conversation of a"Korsakow" case. At times she shewed marked flight of ideas, for one day however she never spoke at all.

It was necessary to administer food with a spoon, but she retained control of bladder and bowels. A mild degree of restlessness prevailed, she was not resistive.

No pronounced emotional tone was observed at first, but later her conversation appeared tinged with sus--picion of illusage designed against her and rambled of "case being got up", "I don't want them to say I "did any such thing"

On March 7th with her eyes covered and no suggestion of what was about to be done, firm pin pricks were made over the skin of face, chest abdomen and limbs, not the slighest motor response was detected, even with a summation of stunuli. After this I asked her if she could feel pricks which I then made, and she said quite cheerfully "I feel you pricking", asked what with, she replied "Oh like a knife".

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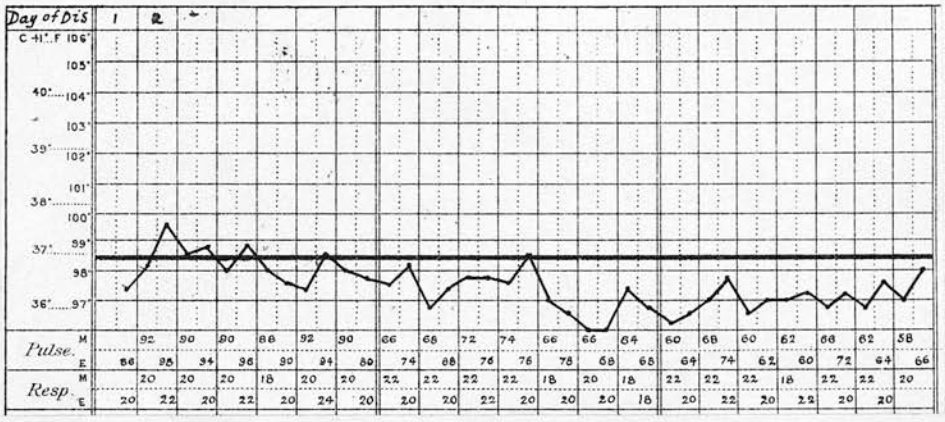
I have asked her whether she had any illness which would have accounted for this attack,- she tells me that she had a very bad cold but nothing more.



Case 10.

M...J...B... Aet 29, single, second attack: admitted 29th November 1911.

History. No hereditary predisposition can be dis--covered: she was in Haywards Heath Asylum in March 1905.

About three weeks before admission she became de--pressed, had fits of crying and became progressively worse till it became necessary to certify her. The Certificate stated that she was "maniacal, tossed "about, sang snatches of songs and was completely "unconscious of her whereabouts and quite incoherent" State on admission. Fairly nourished, looked ill, temp: 97. 6., resp. 22., pulse 30 of poor quality.

The tongue was slightly furred and lips and teeth covered with sordes: she was much constipated. Knee jerks brisk, pupil reactions normal. Urine specific gravity 1005, no albumen.

Mental condition. She rambled irrelevantly, said she was 40 years old, that she had been here 3 years, and that this was a County Asylum at Highgate(it is not near Highgate). At first I thought she was in a manic phase of a manic depressive insanity.

She was excited, restless, noisy and troublesome, but usually clean in her habits. She slept badly.

December 9th. She has become very much worse, her face is flushed, pulse 106., consciousness is much clouded. quite disorientated, no longer taking any notice of questions and her condition causes con--siderable anxiety. There is however no fever.

December 12th. She has had some catarrhal symptoms, there is slight fever and albuminuria, but she is much better mentally.

December 19th. The most astonishing change has occurred in her condition, the result apparently of saline injections (per rectum) which have been em--ployed since the 9th December. She is putting on flesh very rapidly and is almost well mentally.

An oedema of the left lower extremity has however developed, and she has had some pain and slight fever: these symptoms are supposed to be due to phlebitis.

January 1st. By this date whe was convalescent mentally, but the leg gave considerable trouble, and she was not discharged until March 1st.

After she had recovered, I questioned her about

her illness. I had not realised that she had any hallucinations on admission, but she tells me she had visual hallucinations, seeing imaginary eatables on the table and water on the floor. She cannot remember having heard imaginary noises or voices.

She had a delusion to the effect that we would cut her hair off, which explained her ridiculous behaviour e.g.:- she would try to put her head into everything, even an egg-shell. The commencement of the acute stage of her illness she could remember, but there followed a blank. She herself says, and this is confirmed by the Nurses, that her return to sanity was very sudden, and this I think was the case.

Her illness, as far as actual mental symptoms were concerned, lasted only one month.

The Medical Superintendent of Haywards Heath Asylum has kindly informed me that her first attack in 1905 was of a similar nature, but only lasted three weeks.

Case 11.

M...H... Aet 36, married, admitted 28th January 1909 after a duration of five weeks.

Family History. An Uncle had religious mania and was treated at home, another was considered somewhat peculiar.

Personal History. She had two operations for tuber--cular glands some years ago.

Her natural temperament was cheerful and excitable and she was of average intelligence. The first change was noticed some five weeks ago, she became excited over some dispute concerning the child of which she was now some months pregnant= bulimia succeeded. She became daily more and more irrational, struck her nurse and finally had to be certified.

The certificate states she says she sees regiments of soldiers in the room, that the Nurses are trying to poison her. She declares there were four Nurses whereas there were only two and she is violent with--out any evident reason.

State on admission. A small woman but well nourished, apparently some six months pregnant. Temp: 99. 2., pulse 120, the lips and tongue dry and cracked, the teeth covered with sorded: knee jerks brisk, and pupil reactions normal. She was confused, had little or no idea where she was, gave her age incorrectly, and said she expected her baby "today or tomorrow". She made mistakes in identity, rambled incoherently, was restless, noisy, alternately irritable and maudlin. Voluntary attention was much impaired, and her mem--ory disorganised.

February 15th. Her condition has become very serious: she obtains no natural sleep and is quite delirious, the pulse is rapid, she is spoon and sometimes tube fed. She exhibits extreme restlessness, necessitating the constant attendance of one or more nurses by her bedside to prevent her from accidentally injuring herself. She has no fever, but as will be seen from her chart there is a marked daily variation below the normal line.

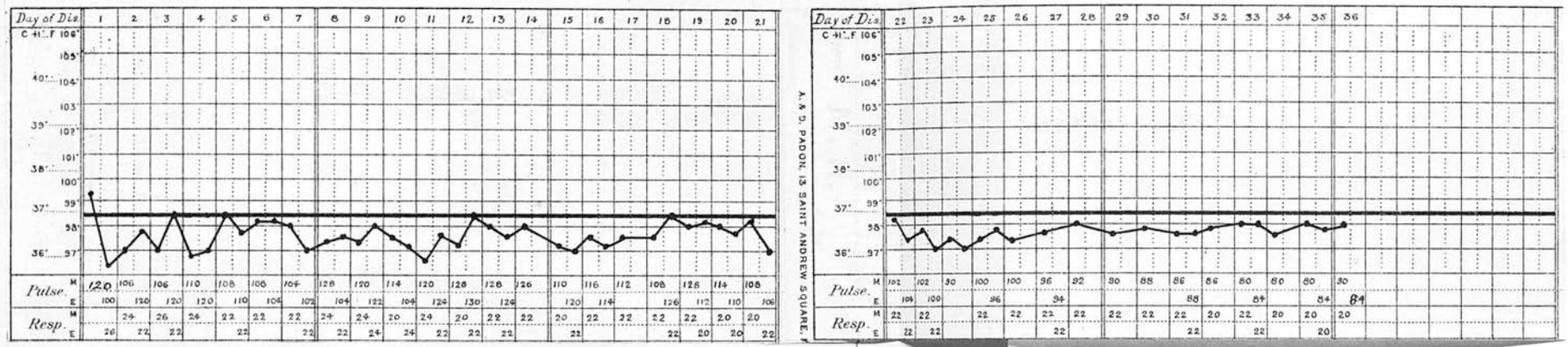
March 1st. Still excited, noisy and refusing food.

April 1st. Is now convalescent, sleeping well, rat--ional in conduct and daily gaining in strength. She is astonished when she hears how ill she has been, and has evidently amnesia for the greater part of the period of her illness.

She was shortly afterwards discharged, and returning

home was confined of a healthy child without the re-
-turn of any symptoms, and we have since heard that
she is keeping well.

Recovery after about eights weeks in the Asylum.



Case 12

M...W... Aet 23, married, lodge keeper, 1st attack,
admitted 11th May 1910.

Family history good: personal history good.

Present illness. She was confined on the 23rd April
of her second child. On the third day she was fev-
-erish, later she became talkative, sleepless and
refused food, about the 8th May being definitely
deranged mentally. The certificate states that she
was excited, rambling, incoherent, and at times
very violent.

State on admission. She looked ill, but was fairly
nourished, her tongue was dry and coated, temp: 101.6
F. pulse 110 and of poor quality, knee jerks brisk,
pupil reactions normal. There was a slight purulent

sluggish but pupil reactions normal. She was much constipated: the urine contains albumen and a trace of acetone

Mental condition. She was delirious and though giving her name correctly was unable to give any connected account of herself. She was disorientated in time and space, e.g.:- when asked how long she had been here, she replied "Oh goodness knows whirling and "whirling on trolleys, and in answer to the question what is this place? replied variously "the Courts "of Justice I suppose", "the Council place at Bushey" She rambled incoherently and in disjointed sentences shewing a certain suggestibility as I spoke to her, e.g.:- "they keep on saying things, I can walk better "than when I came in, he said I was a man and that "he was a woman and that is a lie. You can keep "your abode of love" and so on.

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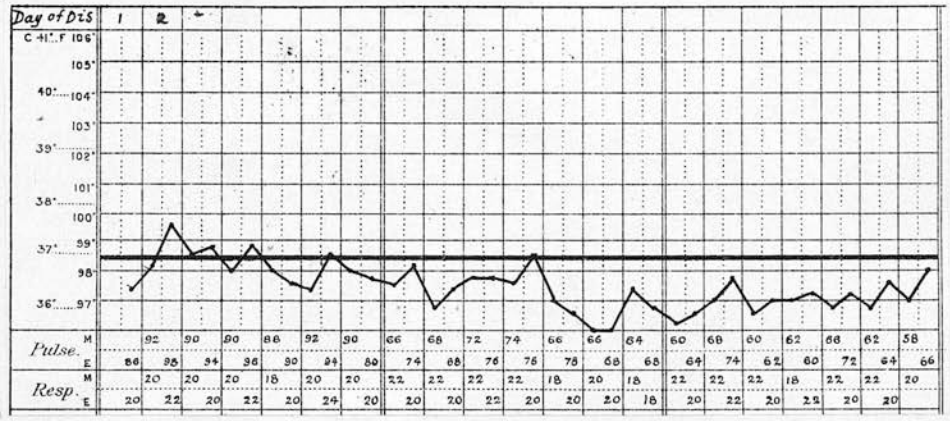


a Duration of one month in Asylum.

Case 10.

M...J...B... Aet 29, single, second attack: admitted 29th November 1911.

History. No hereditary predisposition can be dis--covered: she was in Haywards Heath Asylum in March 1905.

About three weeks before admission she became de--pressed, had fits of crying and became progressively worse till it became necessary to certify her. The Certificate stated that she was "maniacal, tossed "about, sang snatches of songs and was completely "unconscious of her whereabouts and quite incoherent" State on admission. Fairly nourished, looked ill, temp: 97. 6., resp. 22., pulse 80 of poor quality.

The tongue was slightly furred and lips and teeth covered with sordes: she was much constipated. Knee jerks brisk, pupil reactions normal. Urine specific gravity 1005, no albumen.

Mental condition. She rambled irrelevantly, said she was 40 years old, that she had been here 3 years, and that this was a County Asylum at Highgate(it is not near Highgate). At first I thought she was in a manic phase of a manic depressive insanity.

She was excited, restless, noisy and troublesome, but usually clean in her habits. She slept badly.

December 9th. She has become very much worse, her face is flushed, pulse 106., consciousness is much clouded, quite disorientated, no longer taking any notice of questions and her condition causes con--siderable anxiety. There is however no fever.

December 12th. She has had some catarrhal symptoms, there is slight fever and albuminuria, but she is much better mentally.

December 19th. The most astonishing change has occurred in her condition, the result apparently of saline injections (per rectum) which have been em--ployed since the 9th December. She is putting on flesh very rapidly and is almost well mentally.

An oedema of the left lower extremity has however developed, and she has had some pain and slight fever: these symptoms are supposed to be due to phlebitis.

January 1st. By this date she was convalescent mentally, but the leg gave considerable trouble, and she was not discharged until March 1st.

After she had recovered, I questioned her about

her illness. I had not realised that she had any hallucinations on admission, but she tells me she had visual hallucinations, seeing imaginary eatables on the table and water on the floor. She cannot remember having heard imaginary noises or voices.

She had a delusion to the effect that we would cut her hair off, which explained her ridiculous behaviour e.g.:- she would try to put her head into everything, even an egg-shell. The commencement of the acute stage of her illness she could remember, but there followed a blank. She herself says, and this is confirmed by the Nurses, that her return to sanity was very sudden, and this I think was the case.

Her illness, as far as actual mental symptoms were concerned, lasted only one month.

The Medical Superintendent of Haywards Heath Asylum has kindly informed me that her first attack in 1905 was of a similar nature, but only lasted three weeks.

Case II.

M...H... Aet 36, married, admitted 28th January 1909 after a duration of five weeks.

Family History. An Uncle had religious mania and was treated at home, another was considered somewhat peculiar.

Personal History. She had two operations for tuber--cular glands some years ago.

Her natural temperament was cheerful and excitable and she was of average intelligence. The first change was noticed some five weeks ago, she became excited over some dispute concerning the child of which she was now some months pregnant= bulimia succeeded. She became daily more and more irrational, struck her nurse and finally had to be certified.

The certificate states she says she sees regiments of soldiers in the room, that the Nurses are trying to poison her. She declares there were four Nurses whereas there were only two and she is violent without any evident reason.

State on admission. A small woman but well nourished, apparently some six months pregnant. Temp: 99. 2., pulse 120, the lips and tongue dry and cracked, the teeth covered with sorded: knee jerks brisk, and pupil reactions normal. She was confused, had little or no idea where she was, gave her age incorredly, and said she expected her baby "today or tomorrow". She made mistakes in identity, rambled incoherently, was restless, noisy, alternately irritable and maudlin.

Voluntary attention was much impaired, and her memory disorganised.

February 15th. Her condition has become very serious: she obtains no natural sleep and is quite delirious, the pulse is rapid, she is spoon and sometimes tube fed. She exhibits extreme restlessness, necessitating the constant attendance of one or more nurses by her bedside to prevent her from accidentally injuring herself. She has no fever, but as will be seen from her chart there is a marked daily variation below the normal line.

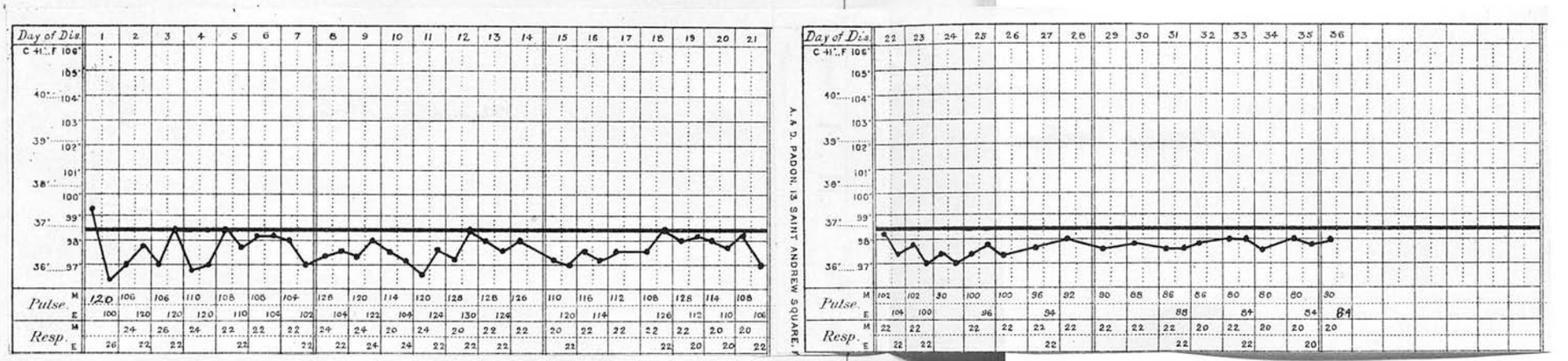
March 1st. Still excited, noisy and refusing food.

April 1st. Is now convalescent, sleeping well, rational in conduct and daily gaining in strength. She is astonished when she hears how ill she has been, and has evidently amnesia for the greater part of the period of her illness.

She was shortly afterwards discharged, and returning

home was confined of a healthy child without the re-
-turn of any symptoms, and we have since heard that
she is keeping well.

Recovery after about eights weeks in the Asylum.



Case 12

M...W... Aet 23, married, lodge keeper, 1st attack,
admitted 11th May 1910.

Family history good: personal history good.

Present illness. She was confined on the 23rd April
of her second child. On the third day she was fev-
-erish, later she became talkative, sleepless and
refused food, about the 8th May being definitely
deranged mentally. The certificate states that she
was excited, rambling, incoherent, and at times
very violent.

State on admission. She looked ill, but was fairly
nourished, her tongue was dry and coated, temp: 101.6
F. pulse 110 and of poor quality, knee jerks brisk,
pupil reactions normal. There was a slight purulent

discharge from the vagina: urine albuminous.

Mental condition. Consciousness was clouded, attention impaired and she was disorientated in time and space. She mistook the identity of those about her, her memory was impaired: she was continually noisy and restless, was resistive at times. The catheter was required,- she was not dirty.

May 15th. The fever subsided and she slept well and was less excited.

May 24th. Irregular fever again. The uterus, examined under chloroform, was found to be enlarged and partially fixed.

May 31st. The fever subsided for a week, but she still looks pale and ill and is not improving much mentally.

August 8th. Irregular fever and sweating point to a probable salpingitis, but she resists all examin--ations in the most determined manner, is noisy, erratic, incoherent, will not heed questions, and her conduct suggests that she has hallucinations of sight and hearing at times.

August 30th. Under choloform a large pelvic abscess was evacuated today, but it is interesting to note that her mental condition which had been improving a little since August 8th, became perfectly well on August 29th, the day before her operation, conscious--ness having completely returned, and all her mental symptoms having cleared up.

Convalescence was uninterrupted from that date, and she returned home to undergo subsequently an operation of considerable gravity which she survived satisfactorily in every way. She had no clear

recollection of the events of her acute illness.

Recovery after 3½ months in the Asylum.

Case 13.

F...H... Aet 23, married, admitted 15th November 1907, first attack, duration three days.

History. No insane heredity known: previous history uneventful.

She was confined on November 4th 1907, and the first change was noticed on November 10th. No further particulars are available until one reads the certificate which states that she was noisy, incoherent, gesticulating and violent at times, that she would hit at the pictures on the wall, would not keep in bed and refused her food.

State on admission. A fairly nourished, slightly anaemic woman, temp: 99. 8.F., pulse 92, tongue furred, breath extremely offensive, gross constipation, knee jerks present, pupil reactions normal: there was suprapubic tenderness.

No specimen of urine could at first be obtained, but later the urine constantly contained albumen: the breasts are secreting milk freely.

Mental condition. She is completely disorientated in space and time, gives her age as 15, and takes little notice of questions. She rambles incoherently at a great rate, is at times restless and destructive, her memory is hopelessly confused,- she has no idea when her baby was born, she frequently refuses food. November 19th. The temp: rose to 104., but the mental confusion became less pronounced.

December 29th. Very seriously ill, some signs of pelvic disturbance and difficulty with the breasts.

She is still noisy, restless and delirious.

1908. January 9th. Yesterday a large abscess of the breast was evacuated under choloform, and from that date she has made good progress. She is still very con--fused however.

February 12th. Is making good progress in every respect.

March 12th. She has had a relapse as regards physical symptoms.

March 20th. She made an excellent recovery and was discharged today having gained over a stone in weight since admission in spite of the prolonged fever: residence in the Asylum 3 months 1 week.

Case 14.

This case I had the opportunity of observing during two separate attacks occurring at an inter--val of three years. The two attacks commenced at the same period of the year, were precisely of the same nature, the symptoms being almost identical, the duration being qpproximately the same and the result equally satisfactory in both cases. The first attack was perhaps the more severe of the two as regards the febrile manisfestations, there was albuminuria and slight oedema of the legs, anaesthesia which was present in the second attack, was not looked for in the first.

I will content myself with giving some details

of the course of the second illness, but the chart attached refers to the first attack.

E....J....R.... Aet 45, married, admitted 21st October 1910, after a duration of about 10 days.

Family history. Father insane.

Personal history. No information available.

The certificate given on October 18th stated that "she waves her arms about wildly, whispered to "invisible persons. Appears to be in fear of any "one who approaches her, and wandered aimlessly "about the Ward".

State on admission. A well nourished woman with a confused expression. Temp: 99.4.F., pulse 98, resp: 26., furred tongue, constipation, a very severe pyorrhoea, knee jerks brisk and pupil re--actions normal: there was marked anaesthesia of the arms, legs and abdomen.

Mental condition. Consciousness was obscured, she paid no attention to questions and was apparently com--pletely unconscious of her surroundings, mistook the identity of those around her, e.g.:- abusing the Matron incoherently, evidently taking her for some enemy of hers, excpet on such occasions she did not speak and was only restless at times. She refused food and neglected the calls of nature.

It was noticable that this patient was subject to vaso motor flushings, her whole appearance strongly suggested a toxaemia of some kind.

November 3rd. Improving, is now clean and less resistive.

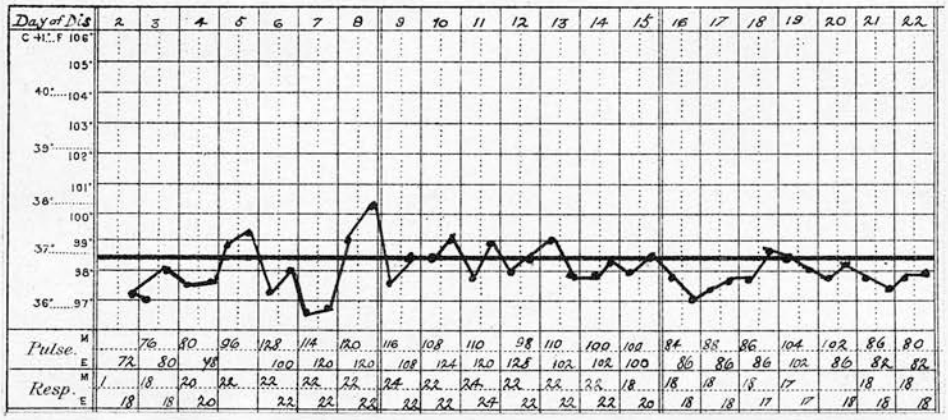
November 10th. Feros herself, the vaso motor

symptoms have ceased to appear, the anaesthesia has left the legs.

November 17th. Confusion is passing away rapidly and there is now no anaesthesia.

December 17th. Continues to make good progress.

January 17th. Has now recovered after a period of three months in the Asylum.



Case 15.

E....H....J.... Aet 41, married, admitted 30th May 1909, first attack, duration a few days.

Family history. No hereditary taint.

Personal history. Uneventful.

One month prior to admission she contracted influenza, on the 27th May she became peculiar, betrayed delusions and attempted to kill herself.

The certificate states:- "That she is wild and "excitable, will not stay in bed, sbruggles and "shouts, declaring that the Nurses are poisoning a "patient in the Ward, that her childrenare being

"drugged to prevent them saying so, and that she will
"be hung for it."

State on admission. fairly nourished, anxious worried expression, temp: 97. 6., pulse 102, tongue furred, knee jerks present, pupil reactions normal.

Mental condition. She volunteers irrelevant conver-
-sation, makes mistakes in the identity of those around her, is incoherent and reveals delusions that someone has been poisoned. She pays little heed to what takes place around her, but will, at times, answer simple questions. Her memory is bad and she is unable to give a connected account of herself, nor can she name the day of the week or month. She is restless and unmindful of natures calls.

June 26th. Is depressed and makes little progress.

July 12th. She laughs now at her troubles and is generally much better.

August 9th. Has relapsed mentally.

September 9th. Again ~~strongly~~ slowly improving.

Briefly the further history of this case was that after one or two brief relapses, she remained in good health, appreciated her position well (good insight), but we thought she had not fully shaken off the idea that she was accused of giving poison to someone, and for some considerable time further she was observed as a paranoidal termination was feared. However, she was finally discharged on June 18th, and we have since heard that she has remained perfectly well up to the present time (April 1912).

Case 16.

S...P... Aet 47, single, admitted 10th March 1908. first attack, duration 10 days.

No hereditary factor. She was supposed to have had influenza, and this and the menopause were assigned as causes, but the history was very de--fective.

The certificate states that she was incoherent, rambled from one subject to another and would spit and bite, that she believed a baby to be in bed with her, and that dogs were biting her.

State on admission. A spare anaemic woman with a flushed face. Temp: 98. 4°F., pulse 100, some cough with muco-purulent sputum, tongue thibkly coated, bad pyorrhoea and gross constipation.

Mental condition. She paid little attention to what was said to her, when asked her name gave an unin--telligible reply and said her age was 503. She muttered irrelevantly and often unintelligibly and appeared to have no knowledge of her surroundings: at times faulty in her habits, she was resistive but not restless.

March 13th. Tube fed today, slight fever and gener--ally toxic appearance.

March 21st. Appears to have a febrile condition, possible Influenza which is now prevalent.

March 27th. Not doing well, her colour is bad, the temperature irregular, she has a foul tongue and shallow rapid pulse and is in a condition of delirium, muttering incoherently. Brandy is being given with advantage

April 2nd. The fever has subsided and there is some general improvement.

April 7th. Is now up and is rapidly improving.

April 20th. Good mental progress but undeveloped oedema of the lower extremity.

May 11th. Perfectly well mentally, but not physically well enough to return home.

She left the Asylum ten days later, and is the only one of my cases that has not gained in weight on recovery, which in her case took place after a residence of two months only.

M I L D G R O U P

Case 17.

M...H... Aet 24. married, admitted 7th January 1909, first attack, duartion 3 days.

Family History good.

Personal history. When aged 7 she was said to have had Concussion of the Brain, and from the age of seven to the age of eleven she walked in her sleep at times.

On the 28th December 1908 she was confined. Five days later, viz:- on January 2nd 1911 she was con--fused in her mind, heard music and saw pictures and tried to fight an imaginary woman. There was no milk in her breasts. On January 5th she expressed a wish to die, and on the following day made an attempt to cut her throat.

The certificate dated January 7th states that she sees imaginary people who accuse her of immorality and attempts to fight them: she has made an attempt

upon her throat.

State on admission. A fairly nourished woman of good type, with a wound on her neck three inches long. Temp: 100.F., pulse 116., resp: 32. The pulse was full and bounding: she was not constipated. Her appearance suggested that some septic process existed; knee jerks present, pupil reactions normal.

Mental condition. She heard imaginary people accusing her of immorality, and was certainly in a state of confusion for a short period after admission, but this passed off so rapidly that when notes of her case were taken, she was lying quietly in bed and could reply to questions, though she did not vol--unteer remarks, and was beginning to appreciate her surroundings.

January 13th. Quiet and depressed. Fever irregular, her mental condition rapidly improving.

January 27th. She appreciates perfectly her position and surroundings and is quite sane, but is seriously ill physically.

A salpingitis developed, a serious operation became necessary and unfortunately was not success--ful, and she died on February 19th 1909, but not at any time during her illness did she again shew any mental symptoms.

The duration of her mental disorder did not exceed three weeks.

Case 18.

E...L... Aet 23, single, admitted 3rd November 1911., first attack, duration four days.

History. No known neurotic heredity.

The certificate (November 2nd), states that she was noisy and excited, danced about naked, said her father (who is in Scotland) was murdered, rambled incoherently and said the Nurses hands turned black. Her friends said that she was a very steady, well educated, girl and had been in good health but had very much overworked herself recently and had been overanxious.

State on admission. Well nourished, of good physical type. Temp: 98., pulse 94, slight pallor: she had a little cough and expectorated. The tongue was clean, she was not constipated. Knee jerks present, pupil reactions normal, but the right pupil was slightly larger than the left.

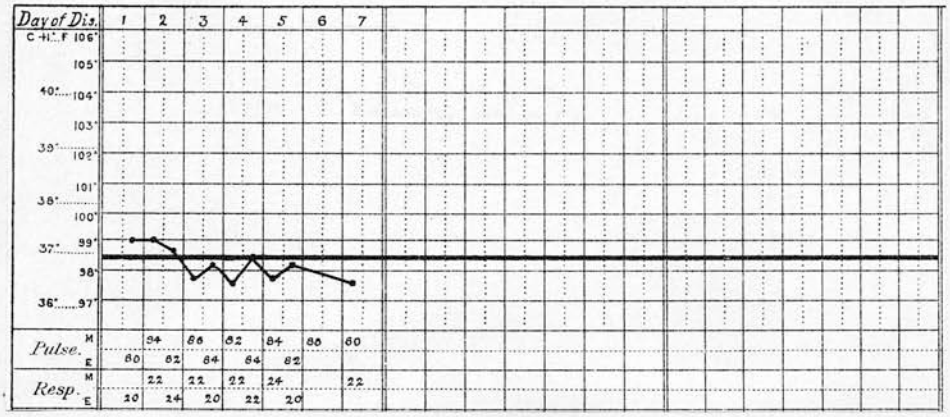
Mental condition. She was restless, noisy and trouble--some, but consciousness was only slightly clouded. She could not name the date or day of the week, but was quite clean in her habits. She made mistakes in identity and talked incoherently about someone who "was going to kill me but her hands turned black". Voluntary attention was much impaired: she sleeps badly

November 16th. For some days now she has been quite clear as to her position, is orderly and useful, sleeps well.

She made an uninterrupted recovery,- she had only a confused and imperfect recollection of the events

which occurred at the height of her attack.

The duration of her mental disorder did not exceed two weeks.



Case 19.

M...K...L... Aet 24. single, admitted 2nd October 1911, first attack, duration three days prior to certification.

Family history. The maternal grandmother had at least one epileptic fit.

Personal history. She had one fit during whooping cough, and her father says that she was not quite up to the standard of her fellows mentally, but that she was a steady, useful, girl of cheerful temperament.

On account of a swelling in her neck, she under went an operation. The surgeon who operated has kindly informed us that the condition turned out to be one of inoperable dermoid cyst, extending

behind the sternum into the mediastinum. The shock of the operation appears to have unhinged her mind and it became necessary to certify her.

The certificate dated the 27th September states that she was "wild eyed and strange, shouts inco-"-herentlythrows her limbs about in a maniacal "way and attempts to jump from her bed: that she "is noisy at times, violent and troublesome over her food."

State on admission. A poorly nourished girl, her features suggesting a not very high order of in--tellect, her hands were of the simian type. She had a small wound in the neck from one end of which pus could be squeezed. The tongue was parched, knee jerks fairly brisk, pupil reactions normal.

She either could not, or would not, stand and was carried to bed.

Mental condition. She took no notice of, and appar--ently had no knowledge, of her surroundings, would reply to a few questions only and those re--plies were incoherent.

It was suggested by her occasional ejaculations of the word "No", that she heard imaginary voices: visual hallucinations were also to be inferred from her condmct. A certain silliness and appearance of negativisim were observed at times, she would try to bite when she was fed, sleep was deficient.

Spoon feeding was necessary, and she was unmindful of the calls of nature.

October 15th. Delirious, aimlessly resistive, pulse very poor and she is looking very ill: there is no

anaesthesia.

October 20th. The wound in the neck is discharging freely, there has been a little irregular fever at times. She is sleeping better and less trouble with her food, bub still delirious.

October 27th. The fever has subsided though the septic condition in the neck persists.

November 27th. Progress is very slow: she is dazed, reacts slowly to questions, is plainly imbecile to an appreciable degree. She had no recollection of anything that happened to her from the time of the operation until a week or so ago, the intirim being a complete blank.

April 1st. She is now convalescent, and she is expected to leave the Asylum shortly.

The duration of her acute illness may be put as 3½ months,

Case 20.

G...L... Aet 25, married, admitted 16th December 1909, first attack, duration 5 days.

No hereditary taint.

Personal history. She had influenza eighteen months ago,- a total abstainer,- has had one child previously. She was confined on the 6th December 1909, after which she could not sleep and became mentally deranged about the 12th December and removed to the Infirmary, being certified on the 15th in the following terms "She is strange, noisy and excitable, talks a lot of irrelevant rubbish, cannot answer simple questions coherently

"imagines that she can see her husband on the ceiling "and in the electric light. Is restless and gets no "sleep and refuses her food.

State on admission. Temp: 97. 6., pulse 86., resp: 24., tongue furred, constipated, knee jerks brisk, pupil reactions normal.

Mental state. She was at times resistive, but clean in her habits, the other mental symptoms being substantially the same as those stated on the certificate.

January 5th. Restless and depressed, very confused when questioned. She begins to improve and then loses ground again.

February 26th. She has had a brief, but pronounced, relapse, but is again improving.

March 19th. Very rapid progress. She has gained nearly a stone in weight and was discharged today after an illness of some three months.

Case 21.

R...E...T... Aet 27, married, admitted 9th November 1911: first attack, duration eight days.

Family history. Her mother is said to be a very excitable woman, who suffers like her daughter from heart disease.

Personal history. She had St. Vitus dance about 9, and has suffered from heart disease for a long time. It was on this account that she was sent to St. Mary's Hospital, as she was very much worse and had pulmonary complications. While there she de-

developed

developed mental symptoms, and her husband was sent for to remove her.

The certificate given at the Infirmary stated that she was depressed and said that her husband was dead and was walking up and down outside, she rambled about religious subjects and said that she was being burnt and drowned.

State on admission. A spare woman, temp: 98. F., pulse 80., resp: 20., dry coated tongue, constipation. Her face was flushed and slightly cyanosed, cough troublesome with some frothy expectoration. She had serious valvular heart disease (mitral), and compensation was deficient. Knee jerks present and pupil reactions normal.

Mental condition. Slight clouding of consciousness apparently, she gives her name and age correctly, but does not know where she is. After five days in the Asylum she thought she had been here six weeks. She was restless and noisy at times, and appeared antagonistic to the nurses. It was clear that she had vivid hallucinations, but they could not well be defined: she insisted that the nurses were burning her.

November 22nd. Still confined to bed, the pulse is irregular, but the cough is better. She has very vivid hallucinations and is apt to be troublesome and resistive.

November 29th. Compensation is now becoming established, and she is much better mentally, the confusion is passing off and there is less restlessness.

April 1st 1912. She is now well, her convalescence has been protracted. From time to time she had to return to bed owing to cardiac embarrassment, and at these times there has always been some return of the confusion.

It is very interesting to note her recollections of her acute illness. It seems, she says, like a sort of trance, the ward appeared to be continuous with her own street at home, she could see wagons going up and down it, over the opposite bed hung a child's coffin and she believed that she saw me (she could recognise me as a Doctor) in my shirt sleeves cutting up her children and her husband. She crawled out of bed and on to the floor,- the only explanation she could offer for this behaviour was that she remembered hearing a voice saying you must get up at six.

The duration of her illness may be put down as 4½ months.

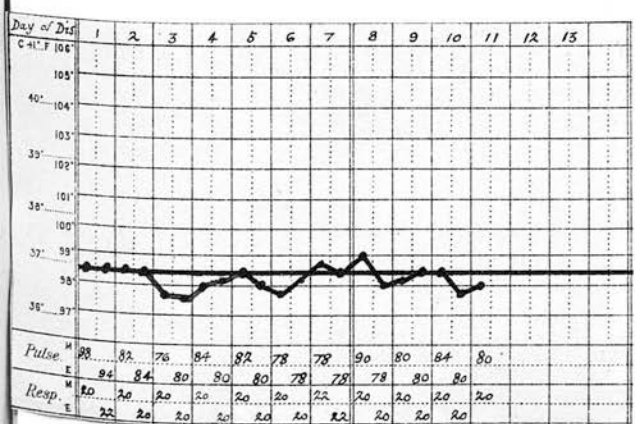
Case 22.

E...M... Aet 36. married, admitted 2nd February 1912: first attack.

A paternal Uncle died in some Asylum.

Personal history. She had had asthma recently and was subject to periodic headaches. Her natural dis-position was siad to be gloomy.

On the 18th January she had a fit, said to be of an ecclamptic nature: on the 20th January, labour was induced, and she was delivered of a still born child.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The certificate informs us that she was delivered during a paroxysm of acute mania, the urine contained much albumen, but there was no ecclamptic fits while she was in the infirmary,- that she was rest--less, noisy, heard the imaginary voices of her hus--band and children and said that she was going to be murdered.

State on admission. (15 days after the ecclamptic fit), a rather spare woman, decidedly anaemic, temp: 98, 4 Pulse 98. respiration 20. Tongue furred, constipated, unhealthy gums, knee jerks very brisk, pupil reactions normal. The urine, sp: gr: 1015, contained albumen in very considerable quantity (3 grammes per litre).

Mental condition. Attention impaired, cognition of what said, very fair. She was, however, unable to say where she came from, where she was, how long she had been here, or what day of the week it was. She fancied that she had been to Canade en route.

She was restless, noisy and faulty in her habits, got but little sleep and was at times impulsive, she said she heard noises in her head like voices and humming.

There was no analgesia.

February 15th. Very much better mentally. There is now much less confusion, the urine is still however loaded with albumen.

Febryary 22nd. Albumen only ½ gramme per litre, progress is slow.

March 12th. Is now convalescent and usefully employed.

March 29th. Discharged recovered after a residence of about two months.

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DOUBTFUL CONTRAST OR ALLIED CASES.

Case 23.

E...L... Aet 30, married, admitted 20th July 1911. Previous history good. Heredity good.

History of present illness. Four months prior to admission she lost her child to whom she was de--votedly attached, she became sleepless, would not take food and became physically ill. On the 24th June 1911 she attempted to strangle her husband.

State on admission. A pale poorly nourished woman. temp: 98. F., pulse 100, tongue clean: she was con--stipated.

Mental condition. She was in a state of great agita--tion declaring that she had killed her baby and that the devil would torture her. It was difficult to estimate her consciousness for she paid little heed to questions, but gave her name and age cor--rectly. She was spoon fed. It was plain that she heard imaginary voices, and that she had halluci--nations of vision. She was at first clean in her habits, but masturbated excessively, so much so that we feared serious injury. (This symptom, which is mentioned by Savage and other writers in this connection, has not been marked in any of the other cases which I am citing). She was resistive, and made nursing a most difficult matter.

Fever ~~xix~~appeared and ran an irregular course (see chart) and an obscure swelling in the groin

and thigh was noticed. She has been confined to the padded room for a time, so extreme was her restlessness. While in the padded room she was oblivious of the calls of nature.

August 4th. The excitement and agitation has largely subsided, when today she suddenly became intensely maniacal for a short time.

August 23rd. Fever subsiding,- an exploratory opening has been made in the thigh, but with a negative result. She is now very depressed, but quiet and inaccessible and she picks her forehead persistently.

September 30th. Is now up and much better, no swelling now seen in thigh, she is putting on weight.

The delusion that the end of the world will be on January 1st, and that she has caused all the illness here occupies her attention.

October 7th. Much better mentally.

November 17th. Relapsed, is again picking her skin.

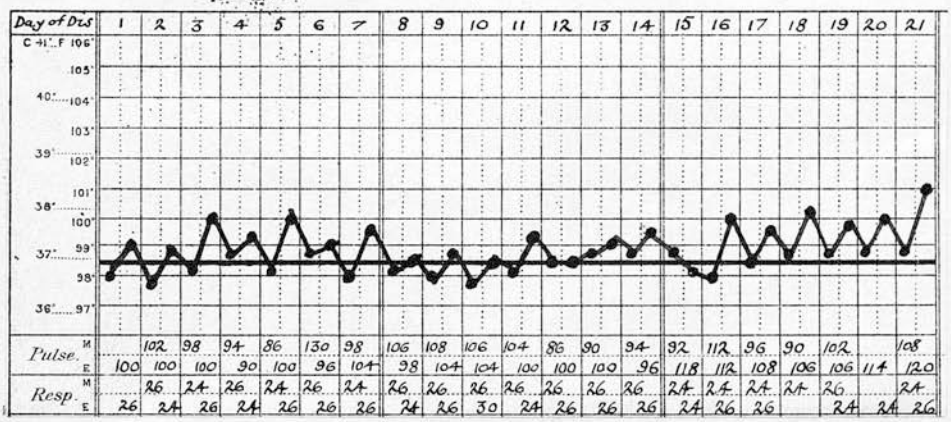
February 17th 1912. Up but no better mentally.

February 27th. Mental improvement commenced,

March 27th. Rapid gain in weight took place, all mental symptoms cleared up, the menses have returned and she has now fully recovered after a duration of eight months.

Questioned as to her illness, she remembers coming here, but soon after that she felt that it was "all confusion, a sort of dreamy condition". To use her own words she tells me that she saw every--thing as unreal, even the sun, that the bread and

milk tasted of turpentine, and that she had (par--aesthesias) cutaneous sensations "like when one wears red flannel".



Case 24.

E...H... Aet 65, a widow, admitted 20th June 1911, 1st attack.

The history was defective, but it appears that she had been ill for one week, and that some little time previously she had had an operation on her

There was no heredity.

The certificate states that she was incoherent, rest--less, noisy, saw someone standing beside her waiting to cut her throat and that albumen was present in her urine.

State on admission. A spare woman with sallow complex--ion and looking very ill: her expression was drawn and anxious. The pulse rate was 108., temp: 97.8 F.

The heart was somewhat hypertrophied and the vessels walls much thickened. Knee jerks present and pupil

reactions normal. The tongue was thickly furred and she was much constipated.

An old scar in the loin indicated the site of the operation on her kidney, but the precise nature of this operation I could not find out.

The urine was concentrated, diminished in amount and contained a trace of albumen.

Mental state. Consciousness was clouded, she was dis--orientated in space and time, being unable to say where she was and whether it was morning or evening. Her associative memory was hopelessly confused,- she muttered incoherently. She had vivid hallucinations of hearing and of vision. She heard her children's voices and saw imaginary persons approaching. These led to delusions that she was to be murdered, but they were of a quite vague nature: she was resistive at times. The prevailing emotional tone was one of depression. She was at times restless and a little noisy. There was a tendency to refuse food but she was not dirty in her habits. She shewed imperception for difficult objects. She had clearer moments at times, when the cloud lifted so to speak when she could recognise me as her Doctor, whereas at other times she had said I was the King. Attention was much disordered but could often be fixed momentarily.

She took no notice of pin pricks in the legs and arms, but said afterwards when questioned that she had felt something like needles, but that she did not suffer any inconvenience.

Insomnia was a troublesome symptom and persisted

for some time.

July 8th. Still confused, imagine she is abroad or that she must die. Urine increasing.

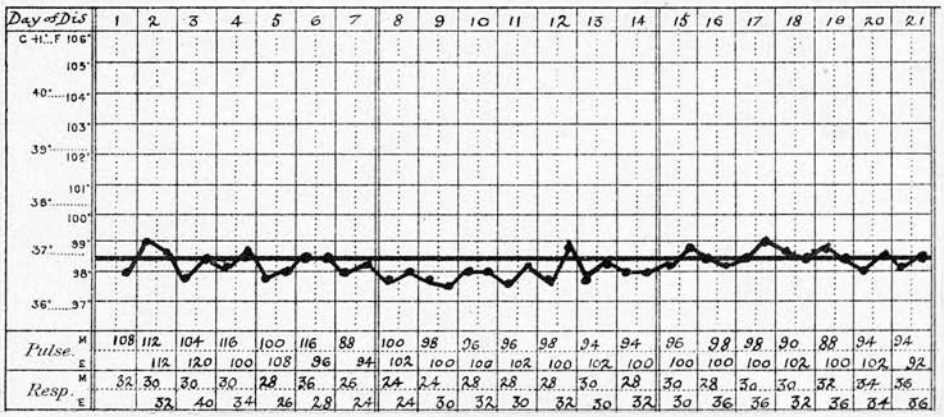
July 15th. She has clearer intervals of longer dura--tion, improving generally.

There seemed every reason to hope that she would make a moderately good recovery, her age and disease notwithstanding, when on ~~July~~ July 21st., she had several uraemic seizures.

These have recurred from time to time, although the resulting paralysis has passed off each time and the mental delirium cleared up. She is certainly now (April 1st) dementing generally.

The case is quoted however to show how complete was the amential syndrome.

The chart shews how even in such a case a slight irregularity of temperature is seen.



Case 25.

E...C... Aet 43, a widow, admitted 5th August 1911.

Previous history. She had been living in Hong Kong for some years, and there she lost her husband in tragic circumstances. For years she had been addicted to excessive drinking (both spirit ans stout). It is clear that she was walking about shopping and so forth three weeks before she was brought to the Asylum, but no detailed history is available.

State on admission. Fairly nourished, of good facial type, temp: 101. 4.F., Pulse 142. all the symptoms of ad--vanced peripheral neuritis, complete paralysis of the Lower extremities and considerable loss of power in the left hand. Respiration was much embarrassed, and the hearts action so much dis--turbed that it was plain that both the phrenic and vagus were implicated, the pulse rate was 140. The tongue was clean, she had a sore on the buttock which subsequently developed into a very large abscess. Tactile sensationwas slightly impaired. Her condition was so alarming that a speedily fatal issue was anticipated.

Mental condition. She exhibited the peculiar delirium to which Korsakow's name is attached: she spoke in a matter of ~~place~~ fact tone, and could comprehend the nature of simple questions, to which apparently relevant replies were given.

Although at times scarcely able to breathe, she had no conception of the gravity of her condition. She believed that she was in Hong Kong and wove

long accounts of a wedding to which she told me she had just been, a wonderful "false memory" presented itself, with the usual suggestibility met with in these cases.

The memory for past events was less impaired than that for recent occurrences. She was indif--ferent to the calls of nature.

August 12th. Abscess in buttock evacuated.

August 26th. Slight physical improvement.

August 31st. Eighteen severe epileptiform convul--sions.

September 30th. No mental progress. Each morning she tells me that she is not very well on account of the miscarriage which occurred during the night. The pulse still 120.

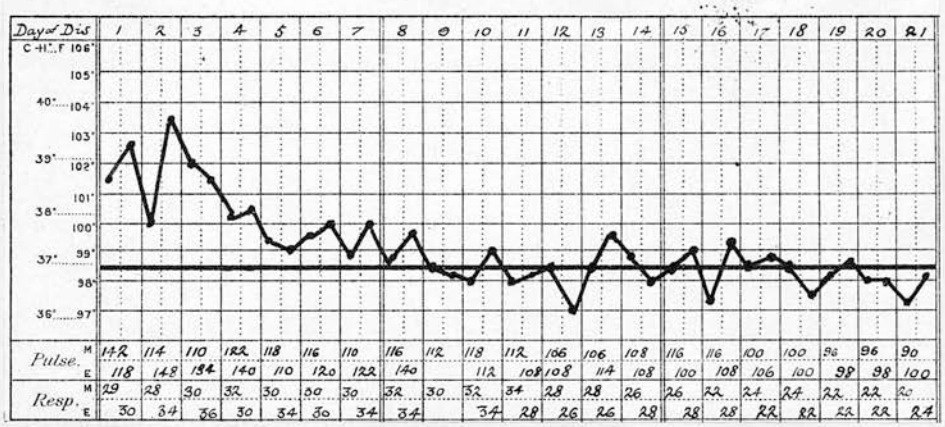
October 17th. After a period of two and a half months, there are now signs of return to conscious--ness with subsidence of the delirium.

November 17th. Slow progress, occasionally has brief attacks of vomiting.

January 1st. A defect in memory is now all that can now be said to constitute the mental side of her illness. There is complete amnesia for the events of her illness. She does not even know that she had a large abscess, though this was opened without a general anaesthetic.

April 1st. A satisfactory mental recovery, but she is still unable to do more than sit in a chair and is very weak still after an illness of eight months duration.

Chart of case 25.



Case 26.

E...C... Aet 41. single, a domestic servant, admitted 14th August 1907, first attack.

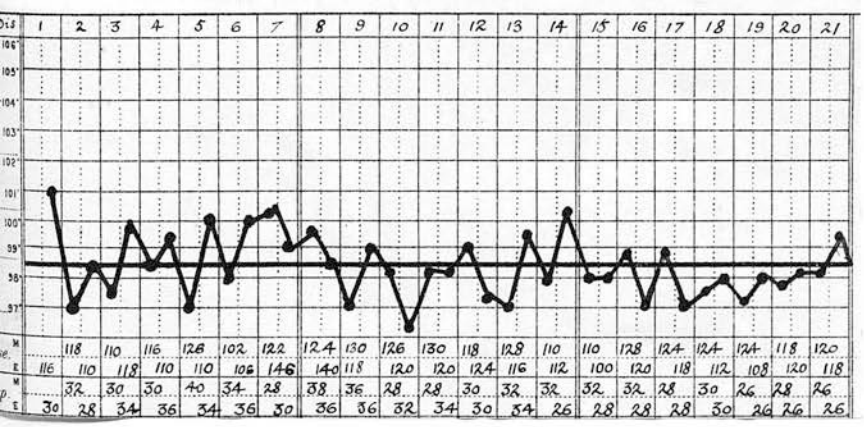
No known hereditary taint.

Personal history. A great spirit drinker for years "Three months ago she began to waste in the arms "and lost her memory, for years she has lost moral "sense and could not speak the truth".

The certificate states that she rambled incoherently, said she had two babies, one 17 the other 16 months old, she believed herself to be at Limehouse, she refused food and was forcibly fed.

State on admission. Obviously very ill, well marked signs of peripheral neuritis, slight dyspnoea, temp: 97. 2., pulse 98., resp: 20. Knee jerks absent, pupil reactions unchanged, tongue dry, breath offensive, gums unhealthy, liver enlarged. General hyperaesthesia.

Mental condition. Usually delirious with obvious hall-ucinations of sight and hearing. She could not give any connected account of her self, did not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know where she was, could not give her own age or say what season of the year it was. At times she appeared merely confused and could reply to a few simple questions. She was restless, but not noisy or resistive, she paid no heed to the calls of nature. She was spoon fed.

August 26th. The temperature rose sharply today to 101, and the pulse was alarmingly poor and collapse appeared imminent.

September 11th. She rallied somewhat, ~~xxx~~ since the last note, but the fever has been running an irregular course and the pulse is extremely rapid (often 130). At times the delirium is less marked and she will occasionally for a brief period be relatively clear mentally.

September 20th. She became suddenly worse today and died in a few hours.

The post mortem examination revealed only a terminal congestion of the lungs, chronic congestion of the liver and a degenerated myocardium.

The course of the illness in this case bore a close resemblance to that in some of the delirious fatal states detailed before.

The chart is that dating from August 26th.

Case 27.

M...A...W... Aet 50, married, wife of a Clerk, admitted 13th February 1911. first attack: duration three days.

Family history. I have reason to believe that a sister

had a brief attack of insanity from which she recovered.

Personal history. A steady woman of good intelligence. She had lately been working very hard, had had much domestic trouble and had neglected to look after herself properly in the way of diet, she had been sleepless also.

The certificate given on February 1st states that she was noisy, restless, kept shouting "what shall I do", and fancied she had defrauded shopkeepers.

She was incoherent and troublesome over her food.

State on admission. Poorly nourished to the point of emaciation, looked extremely ill, and almost in a "typhoid state", at times her cheeks were flushed. Temp. 98. 4., pulse 104. and very small, resp: 26. a few course rales scattered over the chest. The roof of her mouth was acutely ulcerated, a condition of stomatitis existed, the lips and tongue were dry and cracked and swallowing was difficult: the bowels were constipated. The bladder extended to the umbilicum and had to be emptied by catheter, the urine was free from albumen. She lay prostrate off the bed, but small quantities of food and stimu-lants were successfully administered with a spoon. She was absolutely inaccessible, the only movement noticed was a slight blephardspasm,- a pin prick in any part of her body including her face met with no response whatever.

After the first day could not, or would not, attempt to swallow and tube feeding was commenced,

of this she took not the slightest notice. She passed her urine and motions under her.

February 24th. For days her condition has been critical, she appears unable to recognise her friends and is still completely anaesthetic.

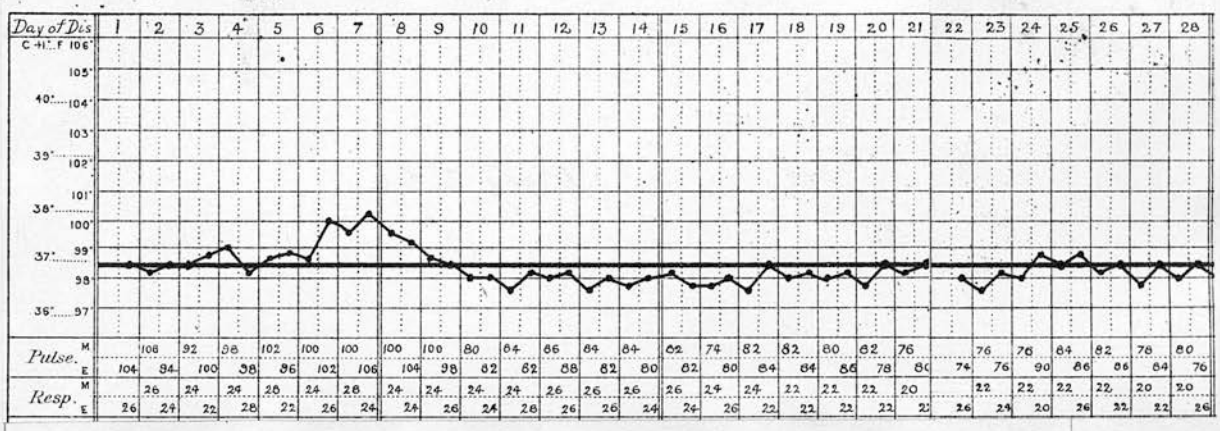
March 3rd. Occasionally now for the first time makes a few inarticulate sounds and ill defined move-ments, even at night being actually restless: there is now no fever. She is definitely resistive. She is looking better and though her skin is usually very dry, she has sweatings at times.

I do not propose to give the details of this case further, but only wish to state briefly that she had been continuously tube fed for over 13 months, is negativistic, screams absurd sentences for hours together, e.g."little voice and breath have left me "entirely today" (a sentence which gradually grew from an unintelligible whisper to its present form), is still anaesthetic but to a much less degree, and shews a profound emotional indifference.

In short she exhibits the symptoms associated commonly with a certain variety of Dementia precox, yet she commenced her illness acutely, and had she died in the first few days might very well have been mistaken for a case of delirium with collapse.

I shall refer again in Chapter IV. to this case.

Chart of Case 27.



Case 28.

G...H... Aet 30., married, admitted 25th October 1910, first attack, duration four days.

Family history good.

Personal history good. She was confined on the 12th October 1910, labour was normal, convalescence was normal until the 23rd October when the temperature rose to 101, and restlessness, excitement and de-lirium set in.

The certificate (October 25th) states "she was "screaming, violent delirious and struggled to get "out of bed, declaring that her mother had gone "mad and was going to injure her baby, that people "were hiding in her bedroom and making noises to "keep her awake. The muscles of her face are con-"-stantly twitching".

State on admission. A well nourished and well developed woman with pale complexion: her expression varied, but was always unnatural. Temp: 98.6., pulse 96. resp: 24. Knee jerks present, pupil reactions normal. Slight vaginal discharge, not definitely septic however. Urine sp: gr: 1028, no albumen.

50

The hands, arms, legs thigh and abdomen were anaesthetic.

Mental state. Restless, excited, noisy, dirty, resist--ive, shewing tendency to refuse food, taking no notice of questions. Completely incoherent, evidently troubled by hallucinations of sight and hearing, impulsive at times. I thought that she had no know ledge of her surroundings.

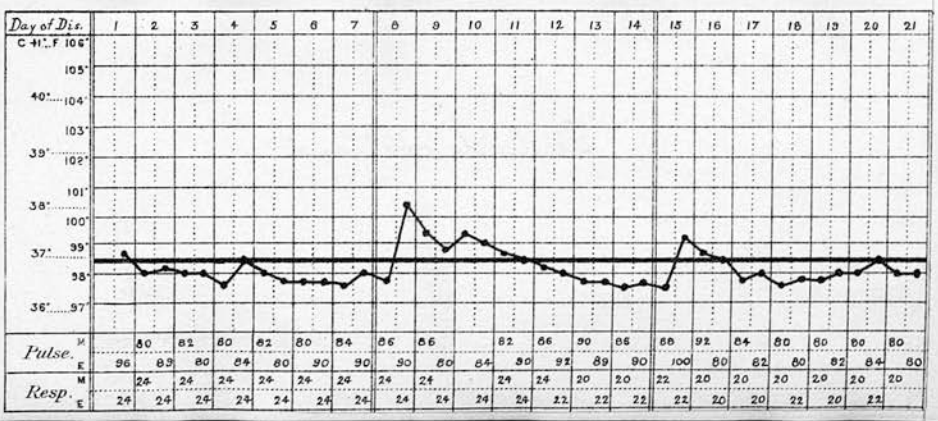
November 12th. Is shewing some slight signs of improvement.

November 19th. Lies quietly in bed, the catheter has been required at times: is taking food well.

December 14th. Burnt her arm on the radiator today,- she appeared to feel no pain. The improvement is not maintained.

I do not propose to pursue this case in detail. She became steadily worse, though she evidently could now appreciate all that was said to her,- she became negativistic to a degree, shewed complete emotional indifference, was dirty, picked her flesh, became spiteful, wore a constantly malevolent ex--pression and never spoke, though she occasionally shrieked as though in fear.

She was transferred to Colney Hatch Asylum, and her condition we are told was unchanged on April 1st 1912.



Case 29.

A...L...M... Aet 19., single, a children's nurse, admitted 20th July 1911: first attack, duration about one month.

Family history. Two aunts are said to have been insane.

Personal history good until some six weeks ago, when she began to mope and behave in a peculiar manner. The certificate said she was troublesome over her food, wandered aimslessly about, was unnaturally quiet.

On admission her health was good, but she appeared distinctly confused and her demeanour suggested auditory hallucinations. At times she was restless and she at first neglected the calls of nature. She would seldom speak, ansered only a few questions, appearing too confused to appreciate whab was said to her. She gave no trouble: there was now very extensive anaesthesia.

In about six weeks she began to take notice of her surroundings, and gradually improving, made a good recovery after being five months in the Asylum.

The anaesthesia gradually diminished as her mental condition improved, and had disappeared entirely when she had completely recovered mentally.

It was interesting to note that as she began to improve she would, at my request, take the pin and herself mark out the limitations of the anaesthetic areas which had the usual psychical distribution.

This fact strongly suggested the,as it were, hysterical nature of her condition.

On admission I was puzzled to know whether I was dealing with a very mild case of Confusional Insan--ity. She shewed no symptoms that really suggested Dementia precox, and the recovery was a very satis--factory one. She told me that she had no halluci--nations as far as she could remember, and could not throw any light on her sensations.

Case 30.

C...P... Aet 37. married, admitted 17th September 1908, first attack.

Family history. Father died in an Asylum.

Personal history. A marked change occurred in her habits four months ago. She was not addicted to the use of alcohol. Menstruation ceased five months ago.

State on admission. A well nourished woman with pale complexion, furred tongue, bowels constipated, unhealthy mouth (pyorrhoea) and general appearance of being very ill. Knee jerks not obtained, pupils inactive to light. A decided tremulousness of the upper lip and a distension of the abdomen.

Mental condition appears confused, is unable to appre--ciate questions, does not know where she is, her mental processes appear to be in a large measure sus--pended. She mutters incoherently and is noisy at times and hallucinations may reasonally be inferred from her demeanour.

September 22nd 1908. Some fever and pulse rate very

rapid, alos occasional profuse sweatings.

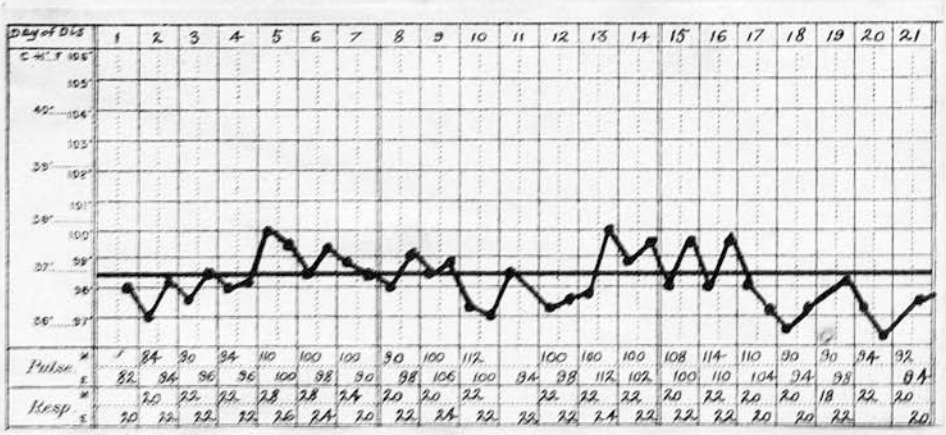
As the result of copious enemata, intensely offensive stools are passed with an extraordinary amount of flatus, the abdomen is still distended.

Her condition is very grave, she obtains no sleep and is quite delirious, the calls of nature pass unheeded.

October 8th. An atont of bowels and bladder followed and not for some two weeks did her intestinal con--dition begin to improve.

From this time onward she rapidly improved, could feed herself, slept well and was clean in her habits, but she was a frank case of General Paralysis of the Insane, and after a long course she finally died of Pneumonia.

It will be seen however that she had at first all the features of the syndrome seen in delirious states, and although the condition of the pupils made it probable she was really a paralytic, the lip ~~and~~ tremor and absent knee jerks could not with any certainty define the condition.



CHAPTER III.

SYNTHETIC STUDY OF MY CASES

In the last chapter I have quoted in detail the clinical histories of some 30 ~~(or more)~~ cases which have presented the features of the condition known as acute confusional insanity. On reading them over, one is struck by the variability in causation, degree, result, and so on, although, I think, in all of them the symptoms are more or less identical. There is enough material in these thirty odd cases on which to base a synthetic study of the disease, and this I shall now proceed to do, utilising at the same time other material which I have had occasion to meet with in my asylum experience, but which is not referred to in detail on the previous pages.

(1) DEFINITION AND TERMINOLOGY

Of all the terms which have been proposed to cover the conditions described in this Thesis, that which commends itself most to my mind is "confusional insanity". The expression is not entirely satisfactory and it is not without certain elements of possible misunderstanding. The epithet "acute" often given to this disease is used variously, as referring to severity, mode of onset, and duration, and is, I think, both too wide and too restricting in its effect. Hence it seems to me preferable to omit the epithet

altogether, and to speak simply of "confusional insanity". It is of course true, as Lugaro has pointed out, that with increase in our knowledge many of the cases will be relegated to other groups of disease, i.e. when their actual cause is fully established, bacterial, toxic, and so on, but at present we must have some common term under which to class them, and I think the expression here used will serve the purpose quite well.

Of other terms which have been proposed, "exhaustion psychosis" is unsatisfactory, as it is not comprehensive enough, and suggests too restricted a causation. "Acute paranoia" is objectionable, because it suggests a relationship to chronic delusional insanity (chronic paranoia) which has, I believe, no justification in fact. There is not the same objection to "amentia", but it is an expression not commonly used in England, and it may be liable to be confused with idiocy, a condition in which there is "no mind". "Acute delirious mania" is an undesirable term, for some at least of the cases cannot properly be called maniacal, any more than melancholic. At the same time, if a sub-division into major and minor varieties is to be made, then such a term as "acute delirium" or "delirium grave" will convey the impression of a clinical picture sufficiently distinctive to characterise the former. One would like to term them "toxic insanities" but all their causes cannot be proved to be

of a toxic nature, and there is good reason to believe that other distinct mental affections, e.g. Dementia Praecox, are of definitely toxic origin.

If an attempt is to be made to give a tentative working definition of "confusional insanity", then I think it may be couched in the following terms:-

> "A GROUP OF SYMPTOMS OCCURRING BY THEMSELVES, OR IN THE COURSE OF OTHER MORE OR LESS RECOGNISED CLINICAL CONDITIONS, WITH A VARYING DEGREE OF COMPLETENESS, BUT COMPRISING THE FOLLOWING OUTSTANDING FEATURES: A CLOUDY STATE OF CONSCIOUSNESS, WITH DISORIENTATION, IMPERCEPTION, HALLUCINATIONS OF SOME OR ALL OF THE SENSES, INCOHERENCE, FLEETING ILL-DEFINED DELUSIONS, DEFECT IN ASSOCIATIVE MEMORY AND A DEGREE OF AMNESIA FOR THE EVENTS OF THE ILLNESS: THESE SYMPTOMS ARE COUPLED ALMOST CONSTANTLY WITH PHYSICAL ILL-HEALTH ROUGHLY PROPORTIONATE TO THEIR INTENSITY".

(2) ETIOLOGY.

A. Sex. While it is generally held that there is a greater liability to this affection in the female sex, the question need not detain us here, for reasons already referred to in the Introduction.

B. Age. Various writers on the subject state that the disease is more apt to occur in youth or in early middle age than in any other age-period, but I see no reason why the syndrome should be restricted to any one

period of life, nor do I believe such to be the case. Certainly the majority of cases do appear to occur in the prime of life, and mine are no exception. But the possible explanations for this are many. There are, for instance, more persons alive in the middle periods of life, and some of the more common causes of confusional insanity, viz: childbirth, pregnancy, and so on, are associated more particularly with the same periods. The patient whose case is no.9 in my series, at the age of 57, presented the cardinal features of the condition in as typical a form as any. The disease has been described in the very young, but I have no opportunity, in the asylum with which I am connected, of investigating such cases.

C. Heredity. It is of course difficult to say where heredity begins or ends, what degree of relationship should be held to carry with it a proof of neuropathic taint, how much reliance should be placed on the accuracy of the information available, and so on. Macpherson maintains the proposition "no heredity, no insanity", but this is an extreme view, which, personally, I find it difficult to accept. On the other hand, it is impossible to regard the factors apparently at work in some of my own cases, factors in operation every day on all classes of the community, without realising that there must be almost certainly some idiosyncrasy of nervous tissue in the individuals af-

fected. This, however, is not the same as an hereditary predisposition. Not a few of the authorities to whose opinions I have already referred lay great stress on the importance of heredity as a predisposing, and often as a principal, factor. Yet prima facie it is not likely, I think, that a psychosis so intimately associated with severe physical disorder or disturbance should require the morbid agency of such a factor as much as other varieties of insanity where the bodily health is often considerably less affected.

To come to the more particular analysis of my own cases:-

Of the eight cases comprising my first group (severe variety), in only three do we find any evidence of the hereditary taint. In Case 2 a maternal aunt is said to have died suddenly from a mental affection similar to that from which the patient herself suffered: In Case 5 a mother's brother died in an asylum: In Case 8 there was a doubtful history of a paternal cousin being in an asylum. As regards my second group (well marked variety) of eight cases only two gave a family history of insanity. These were in Case 11, where an uncle was treated at home as insane; and another uncle was described as being "peculiar": and in Case 14, where the father was insane. In my third group (mild cases), of six cases, one patient had an epileptic grandmother, a second a neurotic mother, while the paternal uncle of a third was definitely in-

sane. Thus out of 22 cases of confusional insanity whose histories are given in detail above, only 8 gave evidence of the presence of an hereditary factor. It is noteworthy that in all these 8 cases, with one exception, the degree of heredity is not very intimate, and in two there was no actual insanity. I think it may be fairly concluded, from the analysis of my own cases, that the importance which has been assigned to the hereditary factor by most writers on the subject has been somewhat over-rated.

D. Predisposing and exciting causes.

1. [Heredity has already been dealt with, in the preceding paragraphs.] These two groups of causes I will consider together. Seeing that our knowledge of them is mostly speculative, it is useless to attempt to differentiate between them. The same factor may be held to be predisposing in one person, exciting in another. Again, several factors may co-exist with regard to the same individual, and we may not be in a position to say which, if any, is preponderating in its action.

2. Toxaemias. According to the more modern views, there are few causes of insanity that are not capable of being regarded as of a toxaemic nature. We have bacterial toxaemias, of an infective and auto-infective type, metabolic toxaemias of the nature of auto-intoxications from the alimentary canal, or as

the result of disorders of general metabolism, as for example in chronic renal disease. Even exhaustion and fatigue may not improperly be looked upon as constituting toxaemias of this group. Excessive destruction of tissue may lead to chemical poisoning which cannot be adequately dealt with by the excretory mechanism. My own impression is that the vast majority of my own cases are due to the operation of causes that come under the heading of toxaemias. For example, in group I. Cases 1, 5, 7 and 8 were definitely associated with toxi-infections. Case 2 strongly suggested a similar causation, which was not, however, satisfactorily demonstrated. Case 3, if the researches of Poynton and Paine be accepted as indicating the toxi-infective nature of chorea, also falls into this etiological group. In case 4, while a metabolic toxaemia might be held to be at the root of the trouble, yet it must not be forgotten that this cause was operative over a long time, whereas the onset and symptoms were acute, hence it is not unlikely that a terminal auto-infective toxaemia from the intestinal canal acted as an exciting factor. Case 6 probably partook of the nature of an exhaustion more than of any other process, but the cause in this instance must remain obscure, the termination not being attributable in any clear way to the preceding epilepsy, or to the Raynaud's disease.

As for Group II, in case 9 there was no apparent

cause, the only feature of the history that might be at all suggestive being the occurrence of a very severe cold, and the presence of a marked degree of constipation. The causation of Case 10 remains a mystery: I can offer no suggestion of its origin. In Case 11 the stress of altered and increased metabolism, associated with pregnancy acting on a predisposed individual, must be regarded as the main cause: in short, the case was one of metabolic toxaemia. Cases 12 and 13 were definitely associated with the septic processes attendant on child-birth. In Case 14, a definitely predisposed individual, the presence of pyorrhoea and of alimentary disturbance would probably provide a sufficient causative element, and that of a toxic nature. In case 15, the association with preceding influenza denotes the nature of the cause sufficiently. The causation of Case 16 was dubious, but prolonged ill-health was an established fact here.

Coming to Group III, Case 17 showed the same cause at work as cases 1 and 13. For Case 18 there was apparently no other factor than overwork. The shock of an operation or the effect of an anaesthetic determined the onset of Case 19, but I must not omit to mention that a chronic septic sinus resulted in this case. In Case 20 the cause was puerperal. Case 21 was associated with severe heart disease, while Case 22 was referable to an abnormal pregnancy (eclampsia).

(The septic focus found in the autopsy - Case 5 - would certainly have been missed had the patient died a day sooner, and this reflection suggests that in certain collapse cases in which no cause was found, there might have been septic foci in such situations, for example, as the Accessory Air Sinuses, the examination of which is outside the scope of the ordinary autopsy.

3. Excessive mental and physical strain, overwork, worry, shock, privation, haemorrhage, disturbances of circulation, employment of anaesthetics, are all factors that may assist in a greater or less degree in the determination of this malady, but, as will be seen from the analysis of my own cases which has just been given, they are operative only in a small proportion of cases. Of course it should not be forgotten that these and the other factors already specified may act and react on each other so as to produce a vicious circle. It is difficult to accept the idea that a very severe shock may partake of the nature of a toxaemia, although this proposition has been made.

(3). SYMPTOMATOLOGY.

I will consider the symptoms of confusional insanity under two headings:- firstly somatic, and secondly psychical.

A. Somatic Symptoms.

a. General. In appearance the patient may be pale or flushed, but the complexion is always unhealthy and she usually looks profoundly ill. Nutrition is generally but not always poor, though it is stated to be so by many observers see, for instance, my case 8. A moderate degree of anaemia is common, but not more so than is often found in other varieties of mental disorder. The puerperal cases, however, are often markedly anaemic, for obvious reasons.

The question of fever in confusional cases is one of particular interest. It is usually present, in my experience, in serious cases, but it is slight in degree, quite irregular, and it may be absent even in a fatal case. It is not uncommon to see a diurnal variation of considerable extent below the normal line. (Vide my case 11). In most cases with high fever, which I have seen, the fever has been attributable to some definite infective condition that was not directly associated with the appearance of the patient's symptoms, and would have been present in any sane individual.

The pulse rate is increased, even in mild cases, and may be as rapid as 120 to 140; even in cases which have not a fatal termination. The volume of the pulse is poor, and its rhythm unaltered. Respiration is slightly accelerated. The contrast, in a bad case, between the quickened pulse rate and the often unaltered temperature is striking.

The blood pressure, as a rule, tends to be low. Vasomotor flushings I have frequently seen (e.g. Cases 10 and 14), and transient sweatings are a common occurrence. A tendency to collapse, often unexpected, as in Case 2. will be alluded to in the Chapter on treatment.

b. Alimentary system. As in any acute illness, of whatever origin, all marked cases of confusional

insanity have a dry parched tongue, with sordes covering lips and teeth. Pyorrhoea, often of a severe type, appears to be met with with exceptional frequency. Nausea and vomiting, mentioned by some authors, have not been noted in the cases under my care. The appetite in the early stages is almost constantly impaired. Refusal of food is probably due only in part to impaired appetite; it is probably also attributable, in part, to gustatory hallucinations, and to the deficiency in the digestive juices which Lewis Bruce has shown to be present.

Constipation may be said to be the rule, and is often extreme. Diarrhoea is described as a concomitant symptom by many authors, but I have only seen it in the terminal stages of definitely septic cases, and in Case 11, one of pregnancy.

c. Urinary system. The specific gravity of the urine, usually spoken of as high, does not, I think, vary materially from the normal. Albuminuria is not uncommon, and is not particularly associated with any one type of the disease. The indoxyl found in some cases is of limited significance, as it may be noted in any case where marked constipation exists. Acetonuria may occur, as in Case 9. It is only recently, however, that I have begun to make a systematic examination for it in confusional cases, and cannot therefore express an opinion as to the proportion

of instances in which it occurs.

d. Nervous system. The pupils are often dilated, but the pupillary reactions are normal.

Muscular power is generally good; in spite of the gravity of severe cases, there is little muscular asthenia. I have not seen the paraplegia mentioned by Savage. There is no obvious muscular wasting.

Subjective sensory phenomena are difficult to elicit, and are probably rare. Objective anaesthesia is referred to, en passant, by some others, but is considered a cardinal feature of the condition by Stoddart.

Many difficulties attend the examination of this interesting symptom. In the prostrate cases no definite deductions can, I submit, be made. In others, motor restlessness or resistiveness renders the patient inaccessible. Broadly speaking, I am unable to attribute to this symptom that position of importance in the symptomatology of confusional insanity which is given it by Stoddart, who has written more than one interesting paper on the subject. His attitude is difficult to criticise, for he says that the symptom is invariably present at some or other stage of the disease, whereas I do not have the chance of seeing every patient from the commencement of the illness. I have, however, frequently found peripheral anaesthesia in my recent admissions; I have also seen

it definitely in a state of post-epileptic confusion arising in a chronic case. The nature of the anaesthesia is difficult to determine; I have spoken of it in some detail in the notes of my Case 9. Its distribution varies from a complete loss of the appreciation of painful cutaneous stimuli from head to foot, to the presence perhaps of a stocking or long glove area. It bears no relation to the distribution of peripheral nerves, or to the segmentation of the spinal cord, is not necessarily associated with loss of other forms of cutaneous sensibility in the affected areas, and is, I conceive, almost certainly of a psychical nature. It may vary in extent and degree from time to time, and when it is well marked it has seemed to me to be proportionate to the degree of clouding of consciousness; improvement in the mental symptoms is often coincident with dimunition or disappearance of the symptom.

I might add that it occurred to me to test the effect of a pin prick on normal individuals, the nursing staff in fact, and I was astonished at the difference that existed between different individuals as regards their reaction to such stimuli; while the majority felt as I did myself, acute discomfort from a moderate stimulus, a minority said that the same stimulus caused them no inconvenience, even though as in one case the effect of the pricks was visible for days afterwards. The diagnostic value of this symptom will be referred to in a subsequent section.

The tendon reflexes are for all practical purposes normal; the organic reflexes are unaffected, except where in severe cases loss of control over them occurs, of psychical origin.

B. Psychical symptoms.

The patients of my series, as we have seen, have all been more or less disorientated, this symptom varying from a complete oblivion of time, space, and even of their own identity, to a slight confusion as to their whereabouts.

A variable degree of imperception is usually found in well marked cases, the use and nature of uncommon objects being misunderstood and mistakes in the identity of those around being frequently made.

Disorder of judgment is also a symptom that is practically always to be observed.

Delusions are frequently noted. They are not in any way fixed, but vary from hour to hour or from day to day. They are no doubt partly due to the imperception, and partly due to the hallucinations which are so constant a feature of the malady. Some few cases, in whom recovery is delayed longer than usual, may hold some particular delusions for many weeks (vide Case 15). These delusions are often of a suspicious nature, and these are the cases which have been described as "acute paranoia".

The hallucinations are of all the senses, but it is only rarely that one can be absolutely certain of

their occurrence. They can, however, sometimes be inferred, and sometimes, on recovery, the patient has some hazy recollection of them. Gustatory hallucinations are probably of frequent occurrence, in cases where poison is suspected. Medicine is often stated by the patients to be poison, though they may take it readily enough - facts which well illustrate their imperception and disordered judgment. Auditory hallucinations are the variety most easily recognised by the patient's conduct; those of vision are, however, I think, at least as frequent.

If Case 23 may be taken as an instance, it illustrates how this symptom may be present though unsuspected, and Case 21 preserved a memory of hallucinations of the most elaborate kind. Any attempt to guess the nature of them from her conduct would have been impossible.

Memory is profoundly disturbed at the height of the disease, the link between the past and present being broken - amnesia for at least part of the events occurring during the illness is always present. This the patient will frequently deny, but a close cross-examination I have often found will prove it to be the case.

The prevailing emotional tone is perhaps one of a depressive type, but it varies widely and is a matter of little importance in itself. No doubt, however, in the initial phase of depression before the disorder is well developed, some attempt at suicide is

common, seven of my 22 Cases (roughly 33%) having been suicidal in a greater or less degree, but once in the Asylum these patients have not been of the actively suicidal class.

Voluntary attention is impaired; instinctive attention can be roused in all except the most severe cases, but in these of course consciousness is almost suspended.

Incoherence is a constant symptom. It may vary from a difficulty in putting words together and in linking sentences, to the wildest jumble of disjointed nonsense, or to simply an unintelligible muttering.

Motor restlessness, another frequent symptom, becomes extreme in some cases. It may be a coincidence but a great many puerperal cases I have seen have displayed, what I am beginning to look upon as a characteristic, boisterousness and hilarity changing with April-like suddenness to a petulant weeping. Resistiveness will be seen to have been present in between 60% - 70%. It is usually of a blind, ill-directed character, quite different to the purposeful, as it were, obstinate, resistiveness met with in cases of Dementia Praecox.

Insomnia is a constant symptom in the early and acute stage. Masturbation I have not thought to be at all common. Many writers lay stress upon it - only in Case 23 was it a feature that calls for comment.

With returning consciousness the patient usually thinks of writing a letter and slight signs of confu-

sion or exhaustion may be noticed in it, but as a rule the second letter is perfectly sensible, the mental confusion generally clears up with the most astonishing rapidity as soon as the corner is turned, just as in the same way the physical change is so rapid that in Case 10, for example, when I asked a nurse who had been on duty for a day with the patient at her worst to go and look at her only a few days later, she was unable to recognize her.

Attention has often been called to the occurrence of relapses and brief temporary remissions in delirious and confused cases. It is quite a common thing to notice that a break in the cloud occurs for a short time, after which the "dream-like state of consciousness" returns. This may happen at any time, but I think is particularly likely to do so when the temperature rises owing to some complications. The rise in temperature may be coincident with an increased leucocytosis which perhaps accounts for the transient improvement. In Case 8 such an improvement occurred shortly before death. Cases 10 14 are, I think, ~~a~~ very good examples of a recurrence.

(4) DIAGNOSIS & DURATION

The very severe cases may be confounded with any acute illness preventing the "typhoid state". It will be necessary to distinguish the less severe forms from ~~of~~ Dementia Precox. When the patient is silent and

the health profoundly affected and anaesthesia is present, it may be impossible to say with certainty with which disorder we are dealing, and Cases 27, 28, and 29 illustrate the difficulties in this connection.

Some severe cases of Manic-Depressive Insanity may present difficulties. An exhaustion element is apt to appear in them as in cases of Dementia Precox and so the clinical picture becomes complicated.

It is not necessary here to point out the contrast between the standard features of these two diseases and the symptoms which I have detailed as belonging to the confusional states.

As in my Case 30 the Amential Syndrome may mask the presence of general paralysis and the physical symptoms and sequence of events must reveal the underlying disorder.

Case 24 shews how the symptoms in their complete form may complicate uraemic conditions. Case 25 presents the delirium of Korsakow, which though possessing peculiar and familiar features, does not essentially differ from that of the cases under consideration, Case 26 shewing a similar delirium due to alcohol and having a fatal result.

The average duration of the illness in the 22 typical cases quoted, was approximately three months.

(5) PROGNOSIS

Taking all the types of the affection into consideration, the prognosis is, generally speaking, good. The patient's chances of getting well and of keeping well are both better than in perhaps any other form of

mental disorder.

In my own cases, of eight in the severe group, only two recovered. Case 4 must inevitably have died; Cases 1 and 5 were probably of the nature of atypical septicaemias; Case 8 developed a commonly fatal complication. In my second group, of well-marked cases, every patient recovered. In the mild group, all the patients recovered except one, and in her case the mental symptoms had disappeared a considerable time before death.

To what facts or symptoms can we look as a guide to prognosis? I do not think that depth of dissolution is really a sure guide. In many of my Cases the most primitive instincts have been in abeyance, and yet the patients have made a good recovery. No case need, I think, be regarded as hopeless, in the absence of any accompanying disorder such as, e.g. puerperal septicaemia, salpingitis, &c.

The existence of the hereditary factor, however, will modify the prognosis, inasmuch as it appears to me the duration of the illness in such cases is apt to be prolonged, as in my Case 19, and the liability to recurrence may be increased, as in my Case 14. In any case where this hereditary factor appears, I think the operation of slighter causes may be sufficient to produce the syndrome, causes to the action of which the patient may be again and again exposed. This is probably the way in which the periodic types

that are described, arise. In instances where the syndrome is only an episode in another disease, the prognosis is usually that of the other condition.

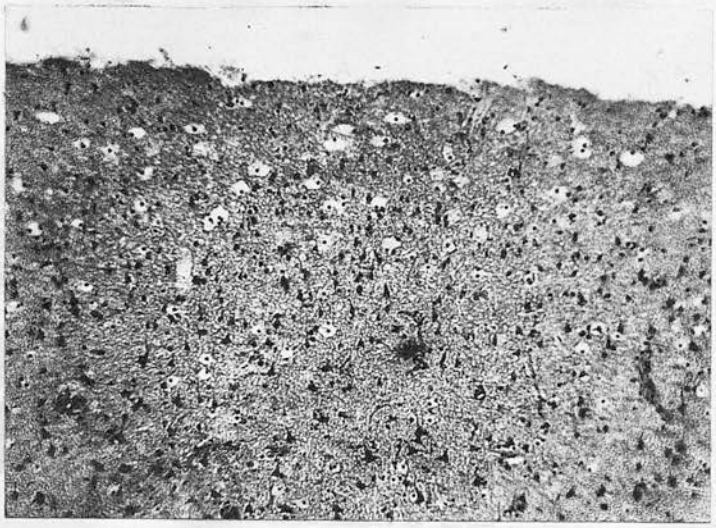
(6) PATHOLOGY

My cases suggest many interesting pathological problems of a pathological nature, but I am not able to offer any facts of importance with regard to the pathology of these conditions and I have only attempted to make a clinical study of my cases.

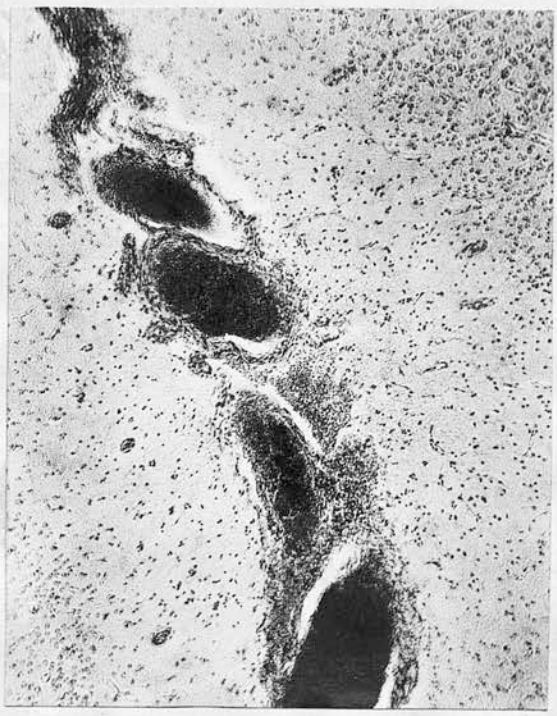
In two of these, however, viz: Cases No.2 and No.8, in whom a fatal issue occurred, I have had photographs taken of sections of the cerebral cortex (frontal lobes) and these I have attached to this chapter.

The sections were stained for me by the Haematoxylin - Van Gieson method . The cortex in each case presented a similar appearance. The photograph from Case 2 shews a vacuolation in the extreme outer layer; that from Case 8 an absence of small cell perivascular-infiltration in the membranes. The examination of these specimens is not concluded and I am not in a position to comment on them.

Case 2.



Case 8.



(7) TREATMENT.

In the absence of any definitely known cause for the disease under consideration, treatment must of necessity be largely symptomatic and on general lines. Associated medical or surgical conditions must of course receive their appropriate treatment.

The following are some of the points to which my experience has shown me attention should be directed.

(1). Institutional treatment.

Personally I have not had the opportunity of seeing my cases from the commencement, and it is almost impossible to say before hand what course they are go--ing to take. Several patients, so far as their con--dition while under my own observation was concerned, might have been treated equally well in a general hos--pital, and had this been appreciated before-hand a few days inconvenience owing to troublesome mental sym--ptoms might perhaps have been put up with. In private practice I imagine a considerable number of cases might very well avoid asylum treatment altogether. Perhaps the worse cases from the point of view of prognosis:- e. g., the typhoid cases, are those that least require asylum care.

(2). Rest in bed and Restraint.

It is generally held, and, indeed, in the more severe cases it is usually obvious that absolute rest and confinement to bed are essential. In some cases, however, this rule is exceedingly difficult to enforce, and some difference of opinion exists as to how to ensure it. Most writers urge that tactful

management and an abundance of nurses (one or more in constant attendance) will meet the case. Tanzi, how--ever, laying stress upon the clouding of consciousness so constant a feature of the condition, insists that it is often in the best interests of the patient, and calculated to conserve his energy without injuring his feelings, to employ some form of mechanical restraint. What form, however, he does not specify. (Chap. 12. p. 358).

For myself, while I think there is no theoretical objection in selected cases, such cases must be few, and it is certain that in large Institutions practical difficulties might very easily arise.

With regard to the question of rest in bed, the period enjoined by many continental observers tends to be prolonged beyond that usually seen in this country, and I think rightly so. It appears to me that there is a very real danger of hurrying on the less acute cases: admission wards fill rapidly, and, in busy In--stitutions, inviduals may perhaps suffer owing to administrative necessities. If a patient is kept in bed for a long time, a regime usually provoking object--ions as soon as she feels herself improving, the dis--advantages of bed treatment should, I think, be count--eracted by the employment of massage, wherever that is possible. I have made use even of unskilled "rub--bing" with advantage.

(3). Fresh air,

Fresh air combined with rest in bed is now generally accepted as one of the best aids to conval--escence. I have made every use of a verandah associa--ted with the acute ward in my department, and my

experience endorses the claims that have been made for open air treatment at this stage. On the other hand, I do not think that when one has a roomy well ventilated Ward extended use of open air methods during the acute stage is really called for.

(4). Treatment of alimentary system.

Whatever value disorders of the alimentary tract may possess as a causative factor, the hygiene of the food canal is of the first importance.

As regards the mouth, my experience is that the gums are a more prolific source of trouble than the teeth. Pyorrhoea alveolaris often of a very severe degree is commonly met with, and though the treatment of Rigg's disease is very unsatisfactory, much can be done by frequent cleansing of the tongue and teeth, and by the use of peroxide of hydrogen as a mouth wash. If available, the new method of using it as a spray which can be introduced into the gum pockets is to be preferred. In cases of such severity as to suggest a possible causal relationship between the physical and the mental processes it might be proper to attempt the somewhat ambitious treatment by vaccines after cultiva-
-tion of the particular organism involved: many success-
-ful cases have now been recorded.

I have employed lavage of the stomach with apparent benefit as a preliminary in a few cases where the "feed" has been promptly returned.

Only nurses of considerable experience seem to appreciate the difficulty there is in relieving advanced constipation. A well known London gynecologist has told me that it takes him a week to clear out a con-
-stipated alimentary canal, and my own experience bears

this out. It may be mentioned that the process is often accompanied by considerable physical disturbance, by fever and a rapid pulse, and it has seemed to me also by aggravation of the mental symptoms, more part--icularly in the direction of an increase in the degree of confusion. The effects may be compared to the stirring of a cesspool, probably with liberation and absorption of fresh toxins.

(5). Diet.

Hyperalimentation if the stomach will permit is recommended by some. My own view is that during the acute stage there is a distinct danger of over--feeding, a fact which was once very forcibly impressed on me at an autopsy. I believe that the limit of nourishment which at this stage can be utilised is very easily reached. Later on, as improvement com--mences, the indications are of course to aid the patient's nutrition by every means in our power.

Most of the cases which require forced feeding, for brief periods only, belong to the class which I have under consideration. Whether the oesophageal or nasal tube is to be employed is a matter, I think, to be decided on the merits of each individual case. The former has the advantage of rapidity, and in addition it permits of the introduction of food thicker in con--sistence and more varied in character than by the latter. If the patient is in a poor state of nutrition tube feeding should be resorted to without delay.

(6). Medicinal treatment.

a. Alcohol. It might be supposed that in acute diseases of this kind the use of alcohol would be a vexed question, but the authors whom I have consulted

appear to agree as to its value in the more severe varieties of confusional states, when the pulse is small and shallow. From my own experience I am con--vinced of its value not only at such times but also as an aid to digestion, and as a general stimulant just when the "corner is being turned".

b. Salines. Of all the means at our disposal for the treatment of acute confusional cases, one of the most valuable is the employment of saline injections per rectum, or in special cases by the subcutaneous or intravenous route. They are of course almost essential where collapse is threatened, but I do not think that their use need be restricted to such emergencies. I see no reason why continuous proctoclysis by Saxon's method might not be employed in those prostrate cases who remain still in bed, but I have not attempted this as yet myself. I have often been astonished at the really marvellous change in some patients after the method has utilised for a few days. In what way the effect is produced is not very clear: it can hardly be simply a question of fluid absorption, for the patient may be drinking freely, and yet improvement does not set in till this method is applied. Maurice Craig con--siders a certain risk is involved in the injection of more than one pint subcutaneously.

c. Drugs. Drugs are of use only in dealing with special symptoms, e.g.:- insomnia. For this distress--ing symptom different writers employ different remedies.

In my experience paraldehyde in two drachm doses night and morning if necessary is by far the safest and most reliable hypnotic. Sometimes amylene hydrate in doses of one to one and a half drachm appears to be

of more service.

During convalescence tonics are usually indicated: it is desirable to vary them, although I find Fellows' syrup is as good as any.

Where there is a tendency to alkalinity of the urine, I have given urotropin, and have thought that its general effect is undoubtedly beneficial, probably on account of its known antiseptic action in the alimentary canal, breaking up into formaldehyde etc., as well as on account of its diuretic effect.

Some of the proprietary foods appear useful in the debilitated, and where convalescence is protracted. Among these, sanatogen where I have used it appeared to be particularly beneficial, but its cost prohibits its extended use in a public asylum.

(7). Baths.

The only remaining form of treatment to which I should like to refer is the use of prolonged immersion in the bath. This is generally held to be one of the best means of combating insomnia and rest--lessness. On the continent, Kraepelin, Alzheimer, Sander recommend it strongly, and it is used also in Seyer's clinic in Heidelberg. Chaslin in Paris employs it extensively, and with success, in post--epileptic confusional states. In this country the method is becoming more and more into vogue. Savage recommends it to be given at a temperature of 98 to 120 F. according to the length of time the patient remains in the bath, and often prescribes it for one hour, night and morning, at a temperature of 100 F.

Grove summarises its effects as follows:-

1. As a sedative to the nervous system.

2. As a means of directing the blood to the surface.

3. As an accelerator of metabolism.

For my own part, I am not in a position to comment on the experience of others or to express any personal opinion as to the value of the treatment, as unfort--unately not facilities exist for its employment in the institution with which I am connected. I have, however, visited institutions where baths are used for this purpose, and, apart from medical evidence as to their value, I have been assured by the Nurses them--selves that the introduction of the bath system has meant for them a striking diminution in trouble and laboub. It would be difficult to provide a more practical testimonial to their usefulness.

CHAPTER IV.

CONSIDERATION OF PROBLEMS SUGGESTED BY MY CASES

1. A nosological problem is the first that suggests itself, viz: "Do these confusional or delirious states which we have been considering, or do any group of them amount to what may properly be called a disease?

Opinions differ and it is of course not a point upon which one can be dogmatic, for the term disease itself is very loosely used. At first I felt inclined to view the more serious cases that crop up from time to time, as something by themselves, and for convenience clinically I think some such term as acute delirium is useful and designates them well. There are indeed facts to support the view of these cases constituting an entity, for example the statement of so experienced an observer as Savage, who says he has never seen the condition twice in the same individual, whereas we have seen that recurrences are met with in the less severe cases. Again the close similarity between them and the "typhoid states" of well established diseases. But on the other hand it seems to me that if we analyse the symptoms presented, we can trace their presence in a more or less complete form, and passing by easy gradations through acute delirium to amentia; through amentia to mild states of confusion with hallucinations, until we find ourselves dealing with a simple Psychosis in which the clinical

picture is widely different from that which constituted our starting point. A great many facts may be brought forward in support of this latter view for example That we find the syndrome, for as such I will now speak of it, in association as we have seen with a large variety of different conditions - and that we are unable to demonstrate any constant pathology.

2. It is universally admitted that a very large percentage at least of confusional conditions are of toxic origin. But my cases have suggested to me that there arises the very interesting question of the relationship that exists between the toxi-infective element when it is present and the syndrome. It is not surely sufficient to state the fact that there is an association with a toxic process and to assume that the relationship between cause and effect is thereby established.

Consider Case 17 of my series - We had here to deal with definite puerperal sepsis; but if this be the cause what is the explanation of the fact that while she speedily recovered mentally, the "cause" became progressively more potent until it killed the patient.

If we turn to Case 12 a similar state of affairs is to be found, the woman having fully recovered mentally before the operation for the relief of her septic condition. These 2 Cases suggest either that

something associated with but distinct from the sapraemia and acting temporarily only sufficed to set up a disturbance of the associative functions of the cortical cells which was re-established independently of the general health, or that the brain cells could become tolerant of the sapraemic poisoning while the rest of the body could not.

In Case 5 I regarded the otitis, though of a grave character as probably a late complication, and not as the spark that started the flame, for the fever apparently due to this was not present on admission, though she was profoundly ill with a pulse of 130.

I quoted Case 4 because it would appear probable that the effect on the body of the chronic toxaemia which must have existed as the result of the kidney destruction allowed of some combination of circumstances of unknown nature which determined the acute delirium. Some such hypothetical explanation is all that offers in most cases. In the general paralytic it is not difficult to see how an auto-infection from the intestine may develope (as in Case 30). The Structure of the bowel having been shewn to be impaired in that disease, it is less easy to understand what determines the infection from the bowel which one is compelled to belief exists in many other cases.

From the consideration of these and other cases I can only arrive at a conclusion that while the great majority of confusional states are associated with

some toxaemic process, the precise relationship is in no way established.

3. What support is theme for the view that the majority, if not all of these Cases are of toxic origin?

The similarity between the syndrome under discussion and essentially similar conditions of known toxic causation. Such as, for example, Delirium Tremens (alcohol) cocaine delirium, Korsakow's syndrome, produced, not by alcohol alone, but by lead or arsenic poisoning, or occurring as a sequel to infective conditions. This similarity of the delirium in certain epileptic and uraemic states, and in delirious episodes in Pellagrous Insanity, is probably also a supporting instance.

The occurrence so often after a special poison, (viz: alcohol) of a typical variety of delirium such as that of Korsakow disease, leads one to hope that by studying one's cases one might find some other variety sufficiently distinctive which would help to group certain cases and so lead to the detection of a cause parallel to the alcohol, but I have not at present been able to make such a fine discrimination.

The question as to whether certain toxins might produce types of hallucination peculiar to themselves has been raised, but here again I can only say that I find nothing constant. Most hallucinations are only inferred at the time, and

The study of the recollections possessed by some patients of the nature of their hallucinations tend to show how erroneous one's natural impressions are apt to be.

4. One asks oneself why it is, when a pyschosis develops in connection with a disease of toxaemic origin that it does not always assume the confusional type.

I have now in my wards two cases of exopthalmic goitre and have seen many others which, though the necessary factors, are not wanting, exhabited a pyschosis in no sense confusional. A case of Addison's disease and one of myxoedema recently in my wards were neither of them to be included in the confusional group. True their insanity might be held to have no relation to their bodily disease, not all victims of Basedow's disease, for example, being insane, but their common text-book descriptions are quite distinct from anything we have had under consideration in this paper.

Chronic Phthisis again is met with commonly enough arising in insane persons without introducing the confusional syndrome. Are not all these conditions usually chronic and of insidious origin - is it not perhaps necessary to have an acute poisoning? Delirium is indeed described as occurring in some instances of fulminating exopthalmic goitre.

I have at the present moment a patient who was extremely ill and profoundly exhausted as the result of sclerosis of the spinal cord, antipyrin habit, an operation for Exopthalmic goitre and a severe attack of diphtheria, yet she does not display the syndrome in any complete form.

How are we going to explain the different re-action?

5. What is the relation of "Exhaustion" to the Syndrome?

A Neurasthenia is, as the word implies, what we should expect to find as at any rate the first evidence of failure to combat an exhaustion. Yet the ordinary text-book description of Neurasthenia bears no resemblance to the confusional state. It is, moreover a chronic condition, while my cases have shewn that this "disease" (one cannot escape the word) is rather of an acute nature. I am told, however, that in the acute disease hospitals patients are admitted from time to time who are diagnosed as acute Neurasthenia, a condition which, though it usually recovers, does pass on sometimes to become an "exhaustion pyschosis". I have no experience of such cases.

6. As we have seen many authors say that patients suffering from the disorder which is the subject of my remarks, either die or recover. If this be so then undeed this psychosis stands alone in such respect.

My quoted cases (with exception of group 4) did

either die or recover.

Is there no middle course? It is interesting to note that Stoddart, for instance, quotes a variety of confusional Insanity known as the "Katatonix Variety". It is then possible to regard such a case as 27 - and perhaps even 28 - as Katatonic Confusional Insanity, that does not get well, or to regard them, and this is my own view, as cases of the Katatonic form of Dementia Precox, in whom a temporary confusional phase was super-added.

Those who describe cases who pass on to a chronic condition, do so in the most generally given vague terms, many merely saying that a paranoidal condition results. I have before me the notes of a case occurring in a woman one month after confinement who had a shock in the loss of her father; a condition of only moderate Confusion followed, this gradually cleared up leaving hallucinations, ill health and a condition not unlike that seen in Dementia Paranoides. As time went on this was the view taken of her case, when unexpectedly her health improved, she put on flesh rapidly and was discharged recovered 2 years after her admission. Had this case not recovered it might have been regarded as one of the unsatisfactory terminal types which as mentioned above, are said to occur. This woman had marked insane heredity and a mixed Psychosis would not have been surprising.

On the whole I am inclined to believe that in unmixed cases there is no secondary Dementia.

CHAPTER V

SOME CONCLUSIONS

1. The Evidence available points to Confusional States being of the nature of a syndrome, occurring in various conditions of unknown origin, rather than of a distinct disease.

2. The great majority at least of these conditions are of toxic origin, but the precise relationship of the toxaemia to them is undetermined.

3. The importance attached by most authorities to the hereditary factor is over-estimated.

4. There is no evidence to show that"aute delirious mania" and "confusional insanity" differ essentially from one another.

5. By implication I conclude that in view of the frequency of the occurrence of the syndrome in so many varied conditions, the statistical tables of Asylums would probably convey a more correct impression were the percentage of confusional insanity greatly increased at the expense, chiefly, of the "Mania" and "Melancholia" groups.

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