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DEMENTIA PRAECOX.

A CONTRIBUTION TO THE STUDY OF HEBEPHRENIA*

By DR. J. CHRISTIAN,

Physician to the National Asylum, Charenton.

ABSTRACT BY

WM. RUSH DUNTON, JR., M. D.,

AND

CLARENCE B. FARRAR, M. D.,

Assistant Physicians, Sheppard and Enoch Pratt Hospital.

Among the insane who populate our asylums there are many whom we are apt to consider idiots and imbeciles, as they appear to be such, and lead a vegetative existence. On studying their histories, however, we may be surprised to learn that in their early youth they were normally, or exceptionally, intelligent children. Every one has met young people in whom various slight mental disorders have rapidly terminated in dementia, or, as we used to say, in idiocy. It is this class, which is not yet fully understood to which I shall devote a detailed study.

HISTORY.

Esquirol, in an article on idiocy, says as follows: "Sometimes one observes children who were born with the best of health; their mind expands as their body develops. They show a marked degree of susceptibility, are lively, irritable, choleric,

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possess a brilliant imagination and a precocious intellect; their minds are constantly on the *qui vive*. This activity, not being in harmony with their physical forces, these creatures quickly run their course, their mind comes to a standstill, it acquires nothing more, and the hopes which they have given vanish. This is accidental or acquired idiocy."

This description applies to the cases which I propose to study. For some time dementia of young people was considered as nothing but a complication provoked by fortuitous causes, independent of the mental disease itself.

Later, Morel, J. Falret, Legrand, du Saulle, and Magnan and his pupils opposed this theory and held that dementia of young people was a sign of degeneracy which must be attributed to heredity.

In 1863, Kahlbaum described a form of mental disease rapidly terminating in dementia not appearing until the time of puberty and under the influence of the changes coincident with this state. This he called hebephrenia. Very little notice was taken of his work until 1871, when Hecker, one of his pupils, published the first detailed observations by means of which he attempted to construct a clinical picture of hebephrenia. (Virchow's Archiv, 1871.) He says "Hebephrenia is a mental affection which makes its appearance at the age of puberty, manifesting itself by alternate or successive fits of mania and of melancholia, and progressing rapidly towards dementia." Both he and Kahlbaum thought that the peculiar feature of the malady was its appearance during the puberal epoch.

Etymologically the term hebephrenia means simply the insanity of puberty. The most cursory observation suffices to establish the fact that during adolescence every form of insanity may occur. There would not therefore be one hebephrenia but as many as there are different varieties of insanity. This was evidently the first objection to the theory of Kahlbaum, and he attempted to meet it by withdrawing what had been too positive in his first description. He proposed to recognize two forms, the classic form, terminating in dementia, to be called hebephrenia vera, and another less severe, and curable, to be called heboidophrenia.

Another objection was that certain young people became

demented without showing the classic symptoms of hebephrenia.

Krafft-Ebing, Sterz, Finck, and Kovalewsky consider hebephrenia a degenerative psychosis. Serbsky, of Moscow, pointed out its similarity to katatonia. Hack Tuke considers it a form of moral insanity. Schule regards it as an imbecility and makes a distinction between it and dementia præcox.

Kraepelin admits of two forms, the one which exists without any concomitant symptoms, the dementia being established gradually by simple effacement of the intelligence; the other, more frequent, in which the dementia is more or less complete and is preceded by a group of nervous symptoms, of delirium, etc. He is inclined to apply to the first only, the term hebephrenia.

Scholz, of Bonn, makes the point that hebephrenia attacks especially those individuals who previously were entirely, or almost, normal. Heredity, he asserts, is absent in many cases; finally intellectual weakness may be arrested in its development at all degrees of dementia. Scholz is one of the few authors who does not find that heredity plays the principal rôle in the etiology of hebephrenia.

One must conclude then that what Kahlbaum and Hecker have described is a clinical entity, though the name given might be criticised, and their description applies only to a certain degree. Its occurrence is relatively frequent. In nineteen years' service at Charenton, entirely among male patients, I have been able to collect one hundred and four cases. Hecker placed it as 2.8 per cent and Krafft-Ebing as low as .25 per cent of admissions to hospital care.

One of the most constant and important features of the disease is the tendency to sudden impulses. This is a dominating symptom and persists even to the period of terminal dementia. It was not described by Kahlbaum or Hecker, but has been noted by Sterz, Finck, and Krafft-Ebing.

It seems to me that the term Juvenile Dementia or Dementia Praecox is a term more preferable than hebephrenia, though it matters little by what name it is known, provided we are agreed on the disease itself.

To recapitulate, there are:

1. A constant appearance at the age of puberty.
2. Various delirious symptoms at the beginning.
3. Constant sudden impulses.
4. A rapid termination in a dementia which is more or less complete.

DESCRIPTION OF THE DISEASE.

Synonyms.—Hebephrenia, Idiocy, Dementia Præcox, Juvenile Dementia.

A. HEBEPHRENIA GRAVIS.

When the dementia has become most marked, one sees the patient immobile, cast down on a bench, the eye melancholy, the look vacant, and the physiognomy without expression. Oblivious to everything that is going on about him, he neglects his person; slovenly, untidy, filthy, he tears his clothing, drags himself on the ground, dribbles saliva, forgets to blow his nose, eats gluttonously, bolts with voracity all the food which is offered him. He seems to understand nothing, grins foolishly when spoken to, frequently bursts out laughing without reason. Such a patient may be continually expectorating and a salivary sea forms at his feet; another allows the saliva to accumulate in his cheeks. One will make bizarre gestures, balancing himself forward and backward, striking unusual attitudes. Another utters inarticulate cries, puts out his tongue and makes faces. One fills his pockets with all he can find—buttons, pebbles, wisps of straw, rags, excrement. Some patients eat their excrement and drink their urine. Their sensibilities seem blunted; they are quite indifferent to extremes of temperature, remaining in the sun, cold or rain without seeking shelter; they do not seem to feel any pain from the wounds and bruises which they are liable to sustain.

Frequently they are in a state of absolute mutism, or only speak a few words at intervals. But this is not because of any speech defect; they do not speak because they have nothing to say, perhaps they have forgotten even the most common words.

True ataxia or paralysis does not exist, but muscular rigidity, hypertonus, and stereotyped attitudes are often prominent symptoms.

In a word, the picture of dementia præcox, when the disease

has reached its greatest degree, is that of the idiot reduced to a vegetative existence (third stage of Esquirol). But, nevertheless, in this state of absolute indifference to all that passes before them, there remains an impulsive tendency which is manifested by sudden crises or paroxysms. One tears his clothes in shreds, and tears with a true rage before one has time to even interfere. Another suddenly seizes any object at hand, plate, glass, shoe, and, at haphazard, throws it at his neighbor, through a window, at a mirror, or even, without saying a word, rushes upon his neighbor, or anyone who is passing before him and gives him a kick or a blow.

Such is dementia præcox, hebephrenia in its most complete form, such is what appears in the following cases:

Case 1.—When I took the service of Charenton, in 1873, I found among our old patients a man of about sixty, pale, swollen, lymphatic, never speaking, never doing anything to occupy himself, living in his corner, an absolutely vegetative life. He entered in 1848, having lived in private hospitals for many years. At intervals the patient uttered little cries, a kind of clucking, leaped into the air, clapped his hands violently, then fell back into his inertia. In the morning, at rounds, he glided up to me, pressed my arm, then, with evident satisfaction, returned to his place. This was his manner of showing his affection for me, for if one prevented or hindered his approaching me, he was agitated, became restless, and angry; he only became calm when he had been permitted, in his way, to give me welcome.

I should have considered this patient an idiot, supposing that he had never spoken, that there was total absence of intellectual faculties. My surprise was not small when I learned, by study of the case-book and the documents with which the family furnished me, that N— was the grandson of the most famous painter in the century, that his brother had been one of the politicians of most mark of the second empire; that he himself, after a childhood which had shown nothing abnormal, had made in a Lyceum of Paris a brilliant record, and had been laureate of the general council. It was not until about the age of seventeen that his mind began to be affected, that he had become absent-minded, then eccentric, extravagant, finally ac-

tually insane. Placed in a private hospital, he became rapidly demented, and wound up at Charenton in a state of complete intellectual abeyance, where I saw him thirty years later. He died in 1889 of congestion of the lungs, almost seventy years old.

Case 2.—X——, entered in 1884, aged twenty-four years. His paternal grandfather died of cerebral apoplexy; a paternal uncle was insane. His father (recently dead) suffered with chronic eczema. His mother was very nervous, and of remarkable artistic talent; a sister was extremely intelligent. X—— himself had been a well-endowed child; had no sickness but whooping cough at the age of seven. He received his degree with honor, and passed the examinations for the Ecole des Chartes with high marks.

Now during the time he had been preparing for these examinations he had several times shown signs of cerebral fatigue; he had had some transitory delirious crises which had dissipated without leaving any traces. The attacks became progressively more frequent; he imagined "that he smelled badly, that his comrades avoided him and regarded him with disgust;" he reverberated portions of his studies, complained of his health and said that he would die. He became more and more degraded, would not leave his room, refused all nourishment. He never had sexual excitement, on the contrary, felt absolutely cold towards women; it is doubtful if he even practiced onanism. The symptoms became worse. X—— was placed in a private hospital, then at Charenton. He has been there now for more than fourteen years without any change in his condition. He never speaks, laughs foolishly, eats like an animal, tears and soils his clothes. No trace of sentimental affection is left, visits of his relatives being received absolutely indifferently; he never emerges from his state of apathy. Physically, he was a man of medium height, well developed, and all the organs seemed normal; he merely presented a slight facial asymmetry, the ears had bad edges, stood out from his head. His health was perfect.

Case 3.—Seated on a bench, his hands on his knees, T—— sits motionless the entire time. He has to be brought to table, dressed and undressed. He mechanically pulls out his

hair and beard, or even tears off the skin of his face and hands, making them all bloody, without apparently feeling any pain.

In 1879, T— was thirty-six years old. The only son of aged parents (his father died suddenly at seventy-eight years; his mother died almost at the same age, completely demented); he had done well in his studies, and, receiving his bachelor's degree, prepared for the higher normal school. All his masters predicted success for him, when suddenly he stopped his work, complaining of pains in the head, of fatigue, of insomnia. At nineteen years of age, T— was in such a state of insanity that it was necessary to place him in a private hospital.

Passive and inert so long as he is shut up, he became violent and dangerous as soon as he was out. On a sudden impulse he left the home of his parents and started out at hazard, running straight before him without any object until he fell with fatigue and exhaustion. In 1871 he entered Charenton. He died of marasmus at the age of fifty years.

The number of young people whom I have thus seen become demented is large. Happily all do not reach the state where they lose all intelligence, moral faculties and acquired ideas. Some continue to be interested in drawing or music, or play games. There is in dementia praecox the whole scale of mental deterioration. The above cases remind one of the complete idiot, one who has come to the last degree of intellectual and moral degradation. The cases following may be compared to imbeciles:

Case 9.—C—, born in 1848, was received into the military medical school; there he worked but little, occasionally indulged in excess in alcohol and finally received his diploma. During the war of 1870 he was commissioned as assistant surgeon. In 1874, according to his family, he had brain (?) fever, following which his mind failed, and he was placed in a hospital for insane, from which he came to Charenton in 1881. C— had all the signs of a weak mind. Very careless of his attire, in spite of his pretensions to elegance, polite toward those around him, he walked about with a package of books under his arm, and an enormous portfolio stuffed with papers. He was continuing his studies, he said, and about to publish some important works. He covered reams of paper with illegible

writing; these were memoirs for the institution. As much as one could decipher of it was absolutely incoherent. The memory of C—— was weak; he was confused, said little, could not carry on a conversation; he was in a word a self-satisfied and harmless imbecile. He died of pneumonia at forty-four years.

I have been told that there did not exist in C—— any hereditary predisposition; that his childhood and adolescence were without any peculiarity; that he had been a good student at college, as I can readily believe, as he had been received at the medical school. But it was just at that time that he stopped working, began drinking, and this was unquestionably the beginning of his sickness. The cerebral fever in 1874 was nothing more, I think, than the crisis of delirium from which began his downfall. After this crisis he became an imbecile, and what is remarkable, as I have noticed in all analogous cases, this imbecility attains almost at a single stride the degree which C—— presented, remaining thenceforth stationary without progressing. Such was C—— at his entrance, such we found him eleven years after at the time of his death. He had no physical defects.

Case 10.—T—— came from a family in which all the men (the father and several uncles) had remarkable ability for all the arts, poetry, drawing, etc., linked, it is true, in several of them, with great eccentricity. He himself in his childhood had been a musician of the first order, and though young had composed music of real value.

At eighteen months he had a serious illness (diarrhoea with symptoms of typhoid), but from this time he had excellent health and normal physical development. T—— became a large young man, very dark, of pleasing physiognomy. His disposition was varying, unstable, he lacked in general, perseverance and ability for consecutive thought and action. His classical studies had been mediocre, he had neglected everything for his music in which he excelled.

At the age of twenty years he wished to enter the seminary. At that time he had a crisis of mysticism. In the first year he showed great application, in the second year absolute idleness; he was obliged to leave. He pursued the same conduct when placed by his father in a banking house, he began full of zeal;

at the end of several weeks he neglected his office, absented himself without motive, was absent for several days; when he returned he was unable to give any excuse for his conduct, or to say what he had done or where he had passed the time.

In 1884 (he was then twenty-three), following an insignificant discussion with his parents, he suddenly threw open the window and jumped from the third floor to the street. He sustained several fractures of his limbs, which healed without leaving any troublesome traces.

Following this escapade he spent eighteen months in a private hospital, whence he left to be placed in a family. He intended to pursue a course in a conservatory of music. During several weeks all was well; he then recommenced his eccentricities, and it was necessary for him to return. He was then sent to a pension in the country; one day, opposed by his hostess, he rushed upon her, a knife in his hand; he was then brought to Charenton (1888).

Of medium height, well formed, smiling physiognomy, T— had black hair and beard, the pilary system being extremely developed. No physical defect was found. The intellectual plane is notably low, he is not able to carry on a conversation, only speaks of trivial things, laughs at everything said. He is able to play and preserved in part his skill of execution. But what he composes is made up of incoherent and ordinary reminiscences. He passes his time in drawing, especially the heads of women. These drawings are poor, but he attaches great value of them. To give an idea of his intellectual status, I cannot do better than show a part of a letter, written to his father in 1893, when his grandmother died at an advanced age.

“My dear father (I copy exactly):

Alas! The death of grandmama was anticipated; When one has come to such an age, those about us generally have a feeling of anxiety; for my part, that is the state in which I was before my last journey south, the successive letters which I have received have not dimmed these presentments. Poor grandmother after having brought up all the family and a numerous family too, after having brought together, sheltered and protected them, for the ancestors must be protected, she was compelled to banish herself down there, far away, her country to

be sure, but no longer the country of the heart's remembrance, nearly all her childhood's friends dead, their families scattered like her own by the marriages of the younger members, who in their egoism, break the patriarchal circle to recast it in smaller groups, etc."

One sees in this letter the remains of a cultivated intelligence, but enfeebled and become incoherent. One divines also the affectionate sentiments which he wishes to express, the reference which he makes to the past. But how much of this is wavering and disconnected. T—— composed poetry. He has paid his respects to me with a collection of forty sonnets. I choose one at random:

IDYLLE NEGRE.

Sous le chaud soleil qui rayonne,
Cachée a l'ombre du Sumac,
La dormeuse mêle au tabac
Sa crinière épaisse de lionne.
Le frais éclat des fleurs sillonne
Sa robe d'indienne en sac;
Rien ne se trahit du hamac,
Rien que son regard d'hémione.
Hereux le charmant bengali
Qui conte à sa maîtresse brune
Des nouvelles de son ami.
Hereux le magnolia pâli
Qui sur son sein noir à demi
Pointe comme, en la nuit, la lune.

It can be seen that one must be very indulgent to find either poetry or even versification in this. I would merely say that these verses were given to me in October, 1897. They proved that the dementia had been stationary since 1893.

A characteristic which I have yet to speak of is the following: T—— has a very amiable and tractable disposition, but at certain periods and without apparent motive, he becomes irritable and disputatious. If at such time any one speaks to him, he becomes pale, answers coarsely, making threats. These crises are transitory and he seems to have no recollection of them. For about a year he has shown symptoms of pulmonary tuberculosis.

In the pathogenesis of the disease there are three periods to

be considered. The first, seen at the beginning of puberty, may be called the period of incubation. The second is the period of delirium. The third and last is the period of terminal dementia.

The childhood of those who are doomed to dementia praecox presents, as a rule, no peculiarity worthy of remark. They develop normally, answering all that can be expected of them. I do not agree with those writers who think that dementia praecox can only develop in those who have already shown an evident predisposition. In only nine of my cases was the intelligence mediocre, but not to the point of preventing their acquiring some education. Moreover, 25 per cent of my patients were remarkable for their exceptionable aptitude for language, music, painting, mathematics, etc.

II. DELIRIOUS PERIOD.

It may happen that a gradual effacement of the intelligence and a feeling of distress in the head may be the only symptoms discoverable in this period. It is first noticed that the child who has hitherto done his work regularly becomes idle, absent-minded and lacks application. He becomes irritable and seeks to be alone. He may complain of fatigue, of pains in the head, of vertigo. Insomnia and anorexia are present. This state may be prolonged for weeks and the patient then becomes hypochondriacal. He takes a dislike to his family. Onanism or sexual perversion is usually present, a normal sexual appetite being uniformly absent. The tendency to mysticism is not rare. Ambitious ideas are frequently present, but always show juvenility. Their morbid vanity drives them to many foolish acts. Frequently they have ideas of persecution with or without characteristic hallucinations, not systematized and disappearing with the onset of dementia.

Case II.—F——, father alcoholic, died of cerebral lesions (G. P.?). Paternal grandfather died at twenty-six of some brain trouble. Mother very nervous.

Childhood presented no peculiarity. F—— was a good student and entered the Ecole Centrale without difficulty. The first year he advanced fifty-six points, the second year he made twenty. He was then obliged to interrupt his studies to serve

his year of military service in the artillery. When he returned to school he was quite a different person. He had lost everything he had accomplished, took wretched notes, and very soon showed such a degree of mental incapacity for any sort of work, that his family were obliged to take him away. When he returned home, F—— presented a condition of idle, indifferent inertia, having previously been a passionate lover of the chase and one of the most enthusiastic members of the Alpine Club, he now declared himself exhausted, sick, incapable of the least effort. He kept his bed a part of the day, did not even come to meals. He then became irritable, did not wish to receive any attention, threatened and even attacked his parents, and destroyed his furniture. It became necessary to take him to a hospital. On the way he had an access of fury and shattered and tore to pieces everything in the carriage. His father and the two men who accompanied him were in a constant hand to hand struggle, and only succeeded in mastering him by the most strenuous efforts. He was brought to us in this excited condition, and for a few days his disordered violence increased. I feared an acute delirium. Gradually, however, under the influence of prolonged baths, laxatives, and good food (which for a long time we were obliged to give him by tube), he grew quiet and at once the scene changed. He still did not wish to eat, but it was because he feared to injure others or because he had nothing wherewith to pay his board. He wanted to expiate his crimes, passing the day on his knees, reciting prayers and singing hymns. He came at last to repeat the same phrase for three or four hours on end: "Ave Maria, gratia plena." At night he gets up, throws himself on his knees at the foot of his bed and demands that he be taken to the chapel. He goes naked into the yard and declares that he is the Christ; that a voice has said to him "Thou shalt be Pope."

After several weeks this delirium passes away in its turn, the religious ideas and hallucinations disappear and the patient gains flesh. It is then that one appreciates how much the intelligence has suffered. F—— demands to return to school to finish his course; he goes to the concierge and asks him to open the door; that he can quite easily find his place in the study hall. Otherwise he is perfectly indifferent and accepts the situation

with perfect serenity. One day, a year after his admission, he stopped talking, and from that time, in 1892, nothing has been able to draw him out of this mutism for which he will give no reason. In other respects he seems well satisfied, is smiling and well disposed towards those about him, but never replies to anything that is said to him except by gestures (for several months now he has been talking, 1898). None of the stigmata of degeneration are seen in this young patient; he is tall, of a robust appearance, well developed and a decided brunette. Organs all normal. F—— has not sunk into a condition of complete dementia. The two letters which I reproduce here written respectively in 1892 and 1897, demonstrate that he has lapsed into a mild hebephrenia, and that the intellectual weakening has remained stationary. The first letter follows:

My Dear Mama.—Although having changed my locality I have changed my habits hardly at all, and hope to become convalescent very soon. But we have such good quarters here that that does not matter much. I hope that with rest my health will come back; moreover, it is not necessary to be constantly on the go like Tartarin and one can live very well and contented in one place. I much enjoy country life, and the atmosphere is always pure hereabouts. I have thought that I gleaned from your replies that you had no hope of seeing me embrace a profession, but I am still waiting for something to turn up which shall decide me to take some step for the better. As for money matters, I have full confidence in my studies: yet for the present I need a new hat to go out in, and a little money or a few sous in my waistcoat; we are too near Paris to do without it.

Receive my most affectionate sentiments to all.

The above was written in 1892. The following, written in 1897, I was only able to obtain after reiterated requests:

My Dear Mother.—I don't know whether I am right or wrong in treating lightly things which my books treat seriously. They are so tedious. Get yourself some trusty supporters in your neighborhood if you have the means of recompensing them.

I need a few little useful articles to repair my effects; my stomach is always in bad condition.

To you the calm, to us the tribulations; nevertheless your nephews will never know the misfortunes of many other children.

I am far from having accomplished the long series of fashions which I am revising, and I admire the great progress of our musicians, the works of our architects.

Profit by these last days to revive your youth in the open air.

Your devoted son.

Evidently there is in this second letter more of incoherence than in the first. Nevertheless the dementia has not markedly progressed.

It happens, moreover, as one might expect, the dementia established, there still remain traces of the preceding delirium. This is especially true in the following case:

Case 12.—When P— was entered at Charenton he was thirty-seven years old; he had been insane for more than twenty years. His father, a former professor had reached an advanced age with intelligence unimpaired. His mother died insane in an asylum. Two brothers and a married sister living and well. P— was a good student and became a Bachelor of Letters, having an aptitude for literature, but it appears that the effort necessary for attaining his degree exhausted all his natural force of resistance, inasmuch as from that moment he gave up all effort and began to give expression to his peculiarities. He left his family in order to live by himself. He stupidly and rapidly dissipated his maternal heritage, and had to have a guardian appointed. His life became nothing but a series of extravagances. One moment he dreamed of becoming a priest and entered the seminary, remaining but a few months. Later he conceived the idea of emulating the blessed Labre, did not wish to live except by alms and allowed himself to get in a condition of incredible filth.

At admission P— was pale, thin, did not speak, remained in a corner with bowed head, the saliva flowing from his mouth, mumbling certain words without sequence, fragments of prayers. He stripped himself nude in the water closet, got up at night to kneel before his bed, refused food, was filthy. Three months after a pneumonia supervened, carrying him off in a few days.

To recapitulate, after an initial period of fatigue, of enervation, or neurasthenia, the delirium appears but is varying, changing and transitory. There may be ideas of persecution and grandeur, or mystical delirium, but systematized delusions are not present. All these delirious manifestations, evanescent and uncertain, bear the imprint of the intellectual weakening which they conceal for a time.

Among other forms is that described by Baillarger as Mono-

mania with unimpaired consciousness. The following case is typical:

Case 13.—D—— was born of parents who are still living and well; he has a brother who is a soldier. There is nothing particular about his childhood. He received a primary education, and enjoyed good health, excepting a slight varicocele which he was obliged to carry in a suspensory. His character was timid and he sought solitude. At the age of fifteen years he was placed in a boarding school, where he contracted the habit of onanism, but it was not until the age of seventeen years that he began to become eccentric; his tendency for isolation became more marked; he would not see his parents, refused to go to the table, became irritable and even made threats. At the same time he became a collector. At first he collected all the newspapers that he could procure, classified them and made them up into voluminous packages; then he gathered up all sorts of papers; finally he collected pieces of glass, of pottery, of metal, and placed them in chests which he placed in the garret, and would not allow them to be touched. Very soon his mania extended to bones; at first he collected those which he found in the kitchen, then those of the street. He began to frequent the cemetery where he hoped to find a large supply; but the police interfered, and he was sequestered for the first time in 1892, at the age of eighteen years. After several months his family tried him at home; but his intelligence was enfeebled, the mania for collecting persisted and the violent attacks became more and more frequent. He had to be brought back, became inert, indifferent, untidy. His time was passed in collecting and putting in his pockets odd articles which he was able to appropriate, such as pencils, pens, papers, pebbles, etc. He died suddenly at the age of twenty-five years. I was not allowed to make an autopsy.

D. had marked cranial asymmetry; he would never allow me to take any measures of his head, becoming angry whenever any one tried to examine him.

To this group belong those cases which have been described as phobias. One observes all varieties, but they are nothing more than individual manifestations present in one, absent in another. What is well shown is the tendency to sudden impul-

ses. Any indifferent fortuitous circumstance may accidentally decide what form the impulse will take. It may be homicide, suicide, or incendiarism. A common form of impulse is the irresistible desire for movement which suddenly seizes a patient when he leaves his dwelling without object and is found two or three days later in a distant locality not knowing how or why he came there.

Case 14.—G., born in 1872, came from a family of simple farmers. He had a brother and a sister who remained in the village, and worked with their parents. Having shown, it appears, some aptitude for the sciences they put him to study, he presented himself for admission to the Ecole Polytechnique. Three times he failed; before presenting himself again he had to serve in the artillery; finally, at the extreme limit for age, he was received; he was then twenty-four years old. Soon after entering the school he showed eccentricities, inattention, weariness. At the first vacation, he forgot to return at the appointed time, which brought about suspension. This light punishment, although well merited, gave him a true crisis of despair; he cried out that he was dishonored, lost, that nothing was left to him but to die, and tried to hang himself. On the advice of a physician he was taken to Val-de-Grace, where all his symptoms became aggravated, and when, at the end of a few days, he was brought to Charenton, he was in a state of profound stupor.

Very emaciated, he had an earthy color, the features drawn, his face painfully pinched, he held himself motionless, his head hanging, allowing saliva to run from his mouth, forgetting to wipe his nose. He would not answer any questions, absolutely refused to eat, and resisted when dressed or undressed. From time to time he would utter certain words or fragments of sentences in a low voice: "I am lost,—they will shoot me." For many weeks he had to be fed with a tube; he then took on a little flesh and began to eat alone. But nothing, after about eighteen months of treatment, was able to change his mental condition. G. now presents the picture of apathetic dementia which generally characterizes the grave form of hebephrenia. For a long time he has shown the characteristics of "flexibilitas cerea." Whatever attitude he may be made to assume, no

matter how painful, such as holding his arm in the air or extending it horizontally, he remains in this for a number of minutes.

G. is a large young man, of regular visage, hair and beard black and very thick. He is without any physical defect; for the last few months (1898) he has emaciated and grown feeble. I believe that he has a rapid tuberculosis.

Case 15.—Father insane, for many years in an asylum, two brothers, one died at nineteen years of galloping consumption; the other, eccentric, intelligent but not able to fix himself to anything. The patient was received at the Ecole Polytechnique, but had to repeat one year. After leaving the school he was stationed at the Artillery School at Fontainebleau, and began to show signs of mental derangement. He thought that his comrades were laughing at him, whispering when he passed by; one influenced him, one made him suffer electrical disturbance, etc. After making several accusations he handed in his resignation and returned to his family. It was not long before he took a dislike to his mother, accusing her of being in league with his enemies and of putting drugs in his food; he also threatened her with his revolver. Placed at Charenton, he made himself conspicuous by his eccentric conduct; in the first part of the time he spoke but very little and in incomplete sentences, relative to his ideas of persecution; he made many difficulties about eating, claiming that the food was poisoned. When his mother brought him any delicacies, such as candy or chocolate, he would not touch it until she had tasted it before him. He sought solitude, seeking the darkest corners, where he remained without moving. Little by little he began to affect the most eccentric positions; he would hold himself motionless, standing on one leg, the body bent forward, the look fixed, obstinately directed at the same place. He seemed to suffer whenever he was touched, opposing with considerable resistance when any one tried to make him change his place or attitude. Even in bed he lay in a very strange fashion, hanging his head out of the bed and supported on the sideboard in a way which must have fatigued him. The mutism had become complete; he had to be fed with a tube. He was filthy and allowed saliva to dribble from his mouth. This condition was prolonged; it was

not until the third year of his sojourn that he began to emaciate; he became more and more feeble; a pneumonia (tuberculous) carried him off in a few days; at the beginning of this affection gangrenous spots appeared about the sacrum.

He was a tall young man, thin, a brunette. He had a small head, small ears with adherent lobule. Otherwise there was no physical defect.

Case 16.—E. came of a family which had a great deal of tuberculosis and insanity. His father was an eccentric man, vain and of little intelligence. He was twenty-two years old and studying theology, when he showed a religious exaltation which became more and more marked. He had visions and revelations; he had to be placed in an asylum. I do not know anything about him until several years after the beginning of his mental trouble; he was then in a state of complete intellectual abeyance. He rested motionless on the armchair where he was placed, his eyes obstinately closed, the head falling forward, the mouth open, letting saliva dribble from it, the limbs stiff, and affecting a forced attitude in which they would remain for hours. When one tried to open the eyelids he contracted them with a singular energy. He was absolutely careless about his person. Never during the two years which I observed him have I known him to utter a single word. He died when nearly thirty years old of pulmonary phthisis.

The above cases have an added element, the muscular rigidity, and form a true picture of Katatonia in the last period as described by Kahlbaum. It is recently suggested that Katatonia is the same disease as dementia praecox and the latter term would seem to be more appropriate. I have come to the conclusion that dementia praecox not only includes the two forms which I have described, the grave form (analogous to idiocy), and the lighter form (analogous to imbecility), but also that the grave form itself comprehends two varieties, the simple, in which the muscles are not affected, and the katatonic in which the whole muscular system is disturbed in its functions.

III. PERIOD OF DEMENTIA.

In the generality of cases the attack of delirium of whichever form, maniacal or melancholic, quiets down after a certain

period and this may lead the friends of the patient to believe that there is a possibility of a cure. A careful examination shows that there is a mental reduction and the patient no longer has any control of his attention. The quietness does not last long, new delirious symptoms follow and each time leave the intelligence more impaired, until finally it becomes apparent to all that the dementia is irremediable.

When the attack begins with stupor the passage into dementia is made in a more gradual manner, so that for a long time the diagnosis may be uncertain. It seems to me that, in this case, it is generally the complete dementia, apathetic or katatonic, which will follow. Incomplete dementia is more apt to succeed after a beginning with mania or melancholia, whichever form it may have been, and whatever may be the degree of intellectual effacement, during the terminal period no other delirious manifestations are observed than the impulsive crises characterized by acts of sudden violence, without motive. These become more and more rare, and farther and farther apart, until finally, after several years they disappear almost completely.

The physical health may remain excellent in these patients and it is not rare to see them arriving at an advanced age.

ETIOLOGY.

We give the name puberty to that period of life which marks the passage from childhood to adolescence.

Various authors have tried to show that the period of puberty renders the individual especially liable to mental disorders but they do not prove this satisfactorily.

At the same time it may be conceded that while the puberal evolution of itself is not a factor in disease, at this period the economy is especially delicate and susceptible. Nevertheless the determining causes must always be sought for from without.

Dementia praecox assuredly has its special etiology and if one could penetrate into the depths of the brain one would find in all my patients a single and identical alteration at the bottom, but our knowledge does not reach so far and we are forced to content ourselves with an approximate etiology. A great number of different causes must be taken into account whose

action again can only be explained by that other unknown quantity predisposition. In fact, whatever cause we hit upon we must recognize that this same cause has been brought to bear on many other individuals of the same age, and living in the same conditions, and that they have remained unharmed.

The first question therefore to decide is whether there exists a predisposition to dementia praecox, and in what it consists, in other words, the so-called constitutional causes must be investigated.

I. CONSTITUTIONAL CAUSES.

a. *Age*.—The age of puberty varies not only with the individual but also according to race and climate. Various authors have fixed various periods but if we allow ten years, from fifteen to twenty-five, we shall be as near as possible to the actual limits. Among one hundred and four of my patients, fifty-six were attacked before twenty, only twelve at about fifteen or sixteen, and the remaining forty-eight after twenty.

b. *Sex*.—From my experience I have concluded that girls are less exposed to this disease than boys, but this difference is tending to disappear owing to the more advanced education of women and their consequent greater exposure to determining causes.

c. *Heredity*.—I have found direct heredity in nineteen of my cases, father insane in eight cases, mother in nine, grandparents in two. In eleven cases mental disease was present in a brother, sister, uncle or aunt. Five patients report aliens in their family of unknown relationship. A total of thirty-five cases of established heredity. To these should be added ten cases of neuropathic heredity. Mother nervous and hysterical in eight cases, father epileptic in one and alcoholic in one. Forty-five of my patients have aliens or neuropaths among their ascendants or near collateral relatives (exactly 43 per cent). All of these, however, were normal children, apt in receiving instruction. In six only burdened by heredity was there noticed in earlier years a mediocre intelligence and a certain idleness of spirit, not, however, preventing their attending schools and colleges. A much larger number, namely twenty-two, have possessed faculties above the average and a few have shown remarkable

aptitude for music, painting and mathematics. There were no signs of degeneracy worthy of the name.

Thirty-seven of my patients had normal brothers and sisters.

Of these eight were born during 1871, having been conceived during the latter months of 1870. It is believed that the physical or moral suffering of the mother while pregnant may count for more than the fixed constitutional health of the parents.

d. *Acquired predispositions*.—A child born in the best surroundings may in its early infancy become the victim of an accident, or of a serious illness, following which it remains in a state of cerebral inferiority, which terminates in dementia praecox after several years. In eleven cases I have recorded a severe attack of typhoid fever before the sixth year and in five cases brain (?) fever. Six children were victims of cranial traumatism. Finally must be mentioned the eruptive infectious fevers, rubeola, scarlatina, variola, etc., which often leave in their train more or less serious permanent conditions. Furthermore, diseases which act as predisposing causes when they occur in early infancy may become occasional or direct causes when they occur in adolescence, and be shortly succeeded by dementia.

II. OCCASIONAL CAUSES.

Daraszkievicz calls attention to the fact that in the etiology of dementia praecox he has come across none of the moral causes such as grief, jealousy, etc. I believe that the physical causes play an important rôle, and that they are very diverse. They have one feature in common and that is their debilitating effect. Therefore dementia praecox might well be classified among the exhaustion psychoses described by Binswanger.

a. *Onanism*.—The effect of this practice seems to me to be unduly exaggerated, for it is so common a practice that it cannot be blamed for much that is attributed to it. It is only exceptionally that onanism appears as the principal factor of disease.

b. *Surmenage*.—In a general way this factor is brought into play whenever more is demanded of an organ than it is able to give, no matter what may be the cause of its insufficiency, whether it is inherent in the organ or depends on causes outside of the latter. Surmenage does not consist alone in the

greater or less amount of work *per se* that is required of an organ. On the contrary it depends solely on a disturbed proportion between such work, and, if I may say so, the rendering capacity of the organ.

A brain well constructed and judiciously trained from infancy is able to sustain without embarrassment a considerable and prolonged effort provided there is nothing wrong on the physical side of the economy. Cerebral overburdening is especially found in country children born to live in the open air, and to cultivate the fields, but whom an ill directed ambition transplants to the cities and urges to a student's life.

Case 19.—This patient was the only son of a well to do farmer, who wished to make him a tutor to allow him to escape military service (under the old regime). For a similar reason he married at 21 a cousin-german, also an only child. No heredity. Patient became a teacher and took up his first charge in a village at some distance from his home, and where he was ill-satisfied. He had fifty pupils and they were a source of much worry to him. At this time he was attacked with a mild form of scarlet fever. On recovery, there appeared persecutory delusions, and he declared that he had enemies in the village, who had reported him to the inspector. Also complained of violent headaches. One day he had a violent (hysteroid) attack, threw himself on the floor, uttered loud cries, throwing arms and legs about and rolling around the room. He was carried to bed where his excitement increased, continually crying out and trying to choke his wife. He was taken to Charenton several days later, where at first his condition seemed to improve. The improvement, however, was evanescent, and patient rapidly and completely demented, appearing entirely indifferent, making no exertion, not caring for his person, subject to sudden attacks of agitation in which, he tore his clothing to tatters and destroyed everything at hand. Later these crises became less frequent. Patient was transferred to a provincial asylum completely demented. He was a young man of large stature, well built, dark complexion bearing no stigmata of degeneracy.

Binswanger has observed exhaustion psychoses in young people, boys and girls in the developmental period. (Servants,

farmhands, etc.) Compelled to a considerable degree of labor, getting insufficient sleep and nourishment, finally after various psychic symptoms they fall into a state of complete cerebral reduction of which dementia praecox appears to be the type.

Case 22.—M—— followed a lyceum course and received his bachelor's degree, at which time he gave out, successfully passed examination for service, however, and soon after entered the army. Patient never had had any serious illness. Parents living and well, although M. is very nervous. One brother and one sister married and have children all in good health. Patient is of large frame, well developed with no degenerate stigmata. First symptoms appeared after several months regimental life. Physical and intellectual activity diminished. Fatigue was easily induced followed by lassitude, bizarre ideas, hypochondriacal preoccupations. There even appeared hallucinations of vision and audition. He declared that he had seen a "white lady" who had told him to follow her. Alcohol or other excesses not known whether present or not after his year of service. Having been better and worse by intervals, with frequent signs of convalescence, patient returned to his family, tried to give him occupation by securing him a clerkship with an insurance agent. He was unable to remain. Condition rapidly declined and patient was brought to Charenton, in a state of almost complete stupor. Neither listening, nor speaking or taking any care of his person, he seemed oblivious of everything that was going on around him, and remained sometimes for hours together standing in a corner, preferably behind a door. Appeared to hear voices coming from the wall and the play of his facial expression indicated the profound attention that he paid them. When he is made to walk he advances straight in front of him, if he encounters an obstacle, that is, table or chair, he overturns it, when this is impossible as in case of a wall or tree, he stops and makes indefinite steps without changing his place. He is subject to sudden causeless attacks of violence in which he strikes out in any direction, kicks aimlessly, tears his clothing, throws his shoes from him. One day he dashed with lowered head through a glass door and fell on a piano in the adjoining room. He escaped with a few scratches. On admission M. was 22 (1880), since then dementia has become

complete. Patient still retains his violent tendencies and is inclined to kick any one who passes near him.

To complete this chapter on etiology it remains to investigate whether there is any special importance to be attached to the functions peculiar to women and whether menstrual disorders have the importance generally attributed to them.

Menstrual disorders are not always present and when they are, are not the cause of the cerebral disorder, but are dependent themselves on deeper constitutional disturbances. I have observed several young girls with dementia praecox, in the service of my colleague Ritti. Among them the menstrual function was normal and the hebephrenia was due to the same general causes as among the young men. Surmenage of every variety has occurred. It is among those who have undergone examinations for commissions as teachers and have been subjected to the fatigue of their occupation that dementia praecox is likely to appear.

Case 28.—Mlle. Eugenie admitted to national asylum at Charenton, October 20th, 1880, age 20. Nothing significant in patient's history except convulsions at two and again at five. Physical and mental development normal. Received advanced training and passed brilliant examinations, at the Hotel de Ville. The fatigue and mental stress which always accompany these ordeals, as well as the requisite labor preceding had not affected her health. At this time her mother became insane and had to be taken to an asylum (was soon after taken to Charenton with symptoms of chronic mania with erotic and persecutory ideas). A few days later Mlle. E. fell into a depth of sadness with total insomnia, refusal of food, imaginary fears, she was about to die, her father was to die, etc. Visual hallucinations were present. Her mother appeared to her as a spirit. She had also suicidal ideas, she wanted to throw herself from the window to escape death. This mental state which was present on admission alternated with periods of great excitement, but the most prominent feature of her delirium was the idea of death. She dreamed of corpses, saw coffins, etc. She tried to strangle herself with her handkerchief, or would run after other patients and wind her handkerchief around their necks. Patient then fell into a condition of

stupor with paroxysms of agitation, violent impulses to destructiveness and only at long intervals showing any glimmer of reason. Gradually she became absolutely incapable of taking care of herself, to dress or undress and became very untidy. This degradation which has been in process of evolution for more than ten years has caused patient to resemble a true idiot, when one sees her at present seated motionless on a bench, lips half open, saliva escaping, now and then a burst of laughter or a clapping of the hands, again becoming furious and beating her head, showing no other sign of intellectual activity than a few disconnected words, eating untidily and gluttonously, and unable to perform any act whatever without assistance, one inevitably thinks of idiocy. It is, however, an acquired idiocy. Menstruation has always been regular.

DIAGNOSIS.

Nothing is more difficult than to distinguish at first sight a precocious dement from an imbecile or an idiot. The general appearance, carriage, and manners are the same in all. One may say, however, that as a rule physical stigmata are present in idiocy and sometimes more marked malformations while they are found but very exceptionally in dementia praecox. Such stigmata are cranial malformation, ill-formed features, and abnormalities of various organs. Nevertheless these are by no means constant findings. I have now under observation several young idiots whose physical exterior is nearly normal and this is true of a great many imbeciles.

A mistaken diagnosis is really of little importance, in either case the only thing that can be done is to render their existence as pleasant as possible. The only sure diagnostic point lies in the previous history. The idiot and imbecile have always remained in the same condition from birth. The precocious dement on the other hand has during a varying period enjoyed the use of his intelligence. Likewise in the precocious dement one sees remaining glimmers of his intellectual past with more or less clear recollection which is never the case with the idiot. In this is to be found a valuable element in difficult diagnosis. But in the absence of exact information one may easily be confused.

Diagnosis may be difficult in cases beginning with mental confusion or stupor, the katatonic form. The simple or melancholic stupor can be cured. A correct diagnosis is therefore important. Some aid may be found in the mode of onset. Stupor, properly so called, usually begins abruptly following a sudden profound mental perturbation. Dementia praecox on the other hand established itself gradually and is only apparent after other phases of delirium.

Generally hebephrenia or dementia praecox is easy to distinguish from the symptomatic dementia of adolescence for example, (1) epileptic dementia, (2) dementia following directly upon severe cranial traumatism, (3) alcoholic dementia (which is of course very rare in young people). In all these cases the etiologic element itself furnishes the diagnosis. The real difficulty is to give an opinion at the onset of the malady, but generally a decision can be reached in a short time.

Those cases which have been described under the name of Juvenile General Paralysis seem to me to be nothing more or less than hebephrenic dementia, but this is not the place to discuss the matter.

Prognosis.—Unfavorable. The disease is incurable but life is not jeopardized.

Course.—Duration.—Event.—The course is rapid, the dementia being established in a few weeks or months. In many cases after an initial delirious crisis there is a period of calm which is always of short duration. The dementia is rapidly established and then remains stationary, the patient frequently living to an extreme old age. In those cases which have come to autopsy, while cellular and tissue changes have been found in the encephalon nothing peculiar to dementia praecox could be noted.

Treatment.—There is no curative treatment, but as soon as an adolescent shows symptoms of malaise and cerebral fatigue, it is necessary to suspend all intellectual work and all application in any pursuit whatever. Rest for body and mind, a vacation in the country, in the open air, moderate exercise, substantial food, such are the general means which must first be resorted to, and to which may be added hydrotherapy, tonics and tissue-builders.

While there is no curative treatment, may we at least hope for preventive measures? In a general way I answer yes. In surrounding a child from the tenderest age, with the most favorable condition of development both physical and intellectual, in most carefully avoiding fatiguing his body and mind by ill proportioned labors, in a word, in seeing to it that he lives in an hygienic environment best adapted to his constitution, one will have done one's utmost to carry him without accident through the crisis of puberty. In children burdened by heredity, double precaution is demanded.