gram of a paranoiac patient was observed on the appearance of an attendant by whom he believed he was persecuted. Vogt remarks that the plethysmograph may be useful when there is a suspicion of the simulation or the dissimulation of insanity. HAVELOCK ELLIS.

Dementia Præcox [*La démence précoce*]. (*Rev. de Psychiat., No.* 6, *June*, 1902.) *Sérieux, P.*

This is a very valuable summary of our knowledge concerning Kraepelin's interesting conception of the dementia of adolescence. The history of this disease recalls that of general paralysis, under which were at one time grouped quite a number of different conditions, and conversely to which we now refer a number of cases at one time considered quite unlike in their pathology. For we see that subjects formerly labelled as suffering from various psychoses—maniacal excitement, melancholia, stupor, katatonia, delusional state in the degenerate, primary or secondary mental weakness, primary dementia, etc.—in reality exhibit but various manifestations of a distinct disease, *dementia præcox*, characterised by certain special symptoms and by its evolution. Moreover it is often possible, as in the case of general paralysis, to diagnose the affection in its first stage. Let us therefore give up the idea that dementia præcox is a complication of various insanities (secondary dementia, etc.), but endeavour to diagnose the disease in its early stage and thus obtain valuable data for prognosis.

Reviewing the *history* of the disease, Sérieux finds that the first author who carefully studied it was Morel (1857—1860); in more recent times he draws attention especially to the memorable researches of Hecker, Kahlbaum, and Kraepelin, and to important contributions by Christian and Séglas.

Definition.—Dementia præcox is a psychosis essentially characterised by a special and progressive psychical enfeeblement, supervening usually during adolescence, and culminating as a rule in the disappearance of all manifestation of mental activity, without ever compromising the life of the subject. As in general paralysis, we may distinguish in dementia præcox essential symptoms—those pertaining to the psychical enfeeblement; and accessory symptoms—the delusional disorders. The latter may assume all forms.

In asylums the proportion of these cases to the total number of patients probably varies from 5 *per cent.* (Christian) to 15 *per cent.* (Kraepelin).

Symptomatology.—To facilitate description, four varieties may be considered—(*a*) simple dementia; (*b*) the delusional form; (*c*) the katatonic form; (*d*) the paranoid form.

(*a*) *Simple Dementia* (mitigated or slight hebephrenia of Christian) is not very often seen in asylums, and is characterised by a progressive enfeeblement of the psychical faculties, usually beginning at the age of sixteen to eighteen years; attention diminishes; comprehension is slow; apathy is a dominant feature. Cephalalgia, changes in temper, vague

fears, hypochrondriacal preoccupations may denote the onset. Vagabondage and prostitution are frequently observed.

(*b*) *Delusional Form* (hebephrenia).—The distinctive characters are delusions, usually polymorphous, the absence of definite katatonic symptoms, and of delusional conceptions tending to become systematised. A prodromal period, frequently unrecognised, often precedes it. There is a mobility, an absurdity about the delusions, a want of precision about the conceptions, a marked variability in disposition, which are striking in these cases. The written and spoken language is markedly incoherent, although different from that of mania, of epilepsy, or hysteria; the grammatical construction is there, but there is a plethora of pretentious, foreign words, of neologisms and senseless expressions. This disorder of speech is found also manifested in the appearance and acts of the patients; their gait is odd, bizarre. Certain physical signs which we find accentuated in the third form may be present in this form. In time these cases settle down into a condition of apathetic dementia.

(*c*) *Katatonic Form.*—This is the form well described by Kahlbaum, and characterised by peculiar states of stupor or excitement, culminating as a rule in dementia and accompanied with negativism, stereotypy, and suggestibility in the movements of expression and in the acts (Kraepelin). This negativism is manifested by resistance to all foreign interference, to displacement of the limbs, and movements of muscles generally; by refusal of food, retention of urine, etc. Suggestibility is characterised by the katatonic attitudes — "flexibilitas cerea" of muscles, catalepsy, echolalia, echropaxia. Negativism and suggestibility may be observed together, and are the dominant feature of katatonic stupor. Frequently we may observe sudden impulses and outbursts of laughter in the course of an access of stupor. Katatonic excitement differs from ordinary maniacal conditions by the tendency to stereotypy in the language and acts, this "stereotypy" (Kraepelin) being characterised by the abnormal duration of motor impulses; hence the persistent curious gaits, repeated similar movements of the hands, etc., which these patients exhibit. Stereotypy is very frequent in speech (verbigeration) and in writing.

(*d*) *Paranoid Dementia.*—In this form we get a rapid development of intellectual enfeeblement, with complete preservation of lucidity, accompanied with delusional conceptions, and commonly, too, with sensorial disorders, which are the predominant symptoms for some years. Kraepelin includes in this variety cases with systematised delusions (*Phantastiche Verrücktheit*), which most authors look upon as a separate clinical entity (*e.g.*, Magnan's class, etc.). In paranoid dementia, we find ideas of grandeur or of persecution, hypochondriacal delusions, little or non-systematised, more or less tenacious, with slight excitement and auditory sensorial disorders. The delusions may in their extravagance, their mobility, their inanity, equal or even exceed those of general paralysis. The verbigeration, stereotypy, or "jargonaphasia" of the katatonic forms—more or less accentuated—may be observed.

Physical Signs.—In the various forms of dementia præcox may be noted the following physical signs:—Exaggeration (even marked) of knee-jerks; increase in the mechanical excitability of nerves and muscles;

dilatation of pupils; inconstant pupillary inequality; vaso-motor disorders (cyanosis, œdema, etc.); modifications of cardiac rhythm; diminution of temperature; menstrual disorders; enlarged thyroid; exophthalmos; tremors; anæmia, etc. In a certain proportion, we find vertigo, convulsive seizures, hysterical attacks, temporary aphasias, tetany, etc.—more commonly in women. Increased knee-jerks, pupillary abnormalities, and altered cutaneous reflexes have been especially frequently observed by Sérieux and Masselon in their researches. Muscular symptoms are, of course, well exemplified in the katatonic forms.

Termination.—The psychical enfeeblement which supervenes after a few months, or even several years, possesses certain characteristics. Delusions gradually disappear, but traces may remain, stereotyped in form: hypochondriacal ideas, ideas of persecution or grandeur, ill-defined and often very puerile, etc. This weak-mindedness is occasionally only slight, but undoubted when a careful examination is made. In more marked cases it presents itself in one of two forms—*apathetic dementia* and *restless or agitated dementia.* In the latter the salient features are the signs of automatic purposeless agitation—suppressed muttering, declamation of the same senseless phrases, stereotyped questioning, curious, unseemly gait, tics of various kinds, etc. In apathetic dementia may be seen a tendency to stereotypy, but the characteristic feature is the emotional indifference of the patient, an extraordinary apathy, the ruin of all affective, altruistic, or ethical feelings, with a more or less profound torpor and loss of psychical activity (loss of attention, of judgment, etc.). Patients seek solitude, become mute and immobile—the outer world ceases to exist for them. One does not find in cases of dementia præcox the "euphoria" or sentimentality of general paralytics and of organic or senile dements, nor the morbid emotionalism of the degenerate. In a few, rudiments of psychical activity subsist which bear the stamp of automatism, stereotypy, and puerility; the appetites are gross; patients are vulgar, dirty; many assume stereotyped attitudes (will not sit down, carry their head constantly bent, etc.).

Psychologically, that which differentiates dementia præcox is the weakness of mental images. Hence absence of emotional tone, of tendency to act; the impossibility of fixing the attention; the difficulty of associating ideas or recalling impressions. Masselon sees in dementia præcox a primary affection of the active faculties of the mind; apathy, abulia, loss of intellectual activity—these are the three fundamental symptoms. *Disorders of speech*, so frequent in dementia præcox, are of much interest; *verbigeration* we have noted especially under the heading of katatonic excitement, and *mutism* in katatonic stupor; but one also finds *stereotypy* (the same questions put to all sorts of people, the same exclamations uttered, etc.); "*nigger*" *talk;* voluntary stuttering; *babbling* and prattling, occasionally unintelligible; *neologisms;* and in some cases a true "*jargonaphasia.*"

Course of Disease.—One may describe three stages—the onset, the development, and the termination. The onset is often mistaken for neurasthenia, hysteria, hypochondriasis, etc., and is vague. The duration of the disease may be ten, twenty, thirty, or even forty years.

Remissions.—These may be observed in the second stage, and especially with katatonic excitement. They generally come on in the first few months, but occasionally even after three years or more. In 20 *per cent.* of the cases the remission is prolonged, and may be put down as a cure, in spite of the persistence of a few signs. Relapses generally supervene within five years of the onset of the remission—occasionally later.

Prognosis.—While dementia præcox is not as fatal as general paralysis, and does not cause death, its prognosis is grave; mental recovery is rare.

Diagnosis.—Although the physical signs of dementia præcox are not pathognomonic in comparison with those of general paralysis, they are often characteristic enough to enable a careful observer to suspect the onset of a serious disease, and to give a very guarded prognosis in certain cases which appear slight on superficial examination. The signs to be especially noted are: psychical enfeeblement with relative integrity of memory; disappearance of affective feelings, of emotional tone; apathy; puerility; feeble judgment; marked disorder of personality not related to the activity of delusions; the peculiar characters of katatonic excitement and stupor; flexibilitas cerea or rigidity of muscles; suggestibility or negativism; confusion of written or spoken language (verbigeration, echolalia, "jargonaphasia"); the various forms of stereotypy; and the association of such physical signs as pupillary abnormalities, altered superficial and deep reflexes, etc. Simple dementia præcox must be specially differentiated from hysteria, neurasthenia, degeneracy. The delusional form is often mistaken for the insanity of degenerates, or recurrent insanity, or the mania or melancholia of badly developed individuals. The katatonic form must be distinguished from ordinary stupor and cataleptic states in the one variety; from ordinary maniacal excitement, mental confusion, general paralysis, and various toxic and infectious states, in the other. Paranoid dementia is often confounded with Magnan's systematised delusional insanity in the early stages.

In the final stage dementia præcox is to be differentiated from imbecility, presenile dementia, epilepsy, general paralysis.

Pathological Anatomy.—Macroscopically, there is a notable atrophy in the anterior region of the hemispheres; histologically, grave affection of the cortical cells, especially in the deeper layers; destruction of nuclei, increase of large neuroglia cells have been described.

Etiology.—Adolescence is the great factor. Kraepelin found that out of 296 cases, 60 *per cent.* began before the age of 25 years. Heredity is important. A large proportion of the cases (*e. g.*, 60 *per cent.*) appear to enjoy good mental health before the onset of dementia præcox. Morel considered that alcoholism in the parents is a powerful factor. Among the determining causes the puerperal state and imprisonment are especially mentioned, more particularly in the katatonic form. Overpressure has been mentioned by some observers (Christian, Marro).

Pathogeny.—Kraepelin attributes dementia præcox to lesions of the cerebral cortex dependent upon auto-intoxication, probably of sexual origin; this is practically also Régis's view. But other auto-intoxications than those dependent upon disorders of the organs of reproduction may no doubt determine it. Christian classifies it with the group of psychoses due to exhaustion. There is an interesting contrast between

dementia præcox and general paralysis, that whereas the toxin in the latter affects not only the brain, but also the cerebellum, the pons, the medulla, etc., and is fatal to life; in the former the poison seems to exercise some selective action on the most vulnerable elements of the nervous system—the neurons of the centres of association;—*i. e.*, the poison is apparently selective and specific in its action on certain neurons.

Medico-legal Aspects.—As is the case with general paralytics, the subjects of dementia præcox, especially those suffering from a typical and simple dementia, are often prosecuted for various offences. One must bear this affection in mind, especially in the case of young soldiers; and one must not forget that, as various extravagances are characteristic of the condition, it is important to exclude it before dubbing suspicious cases "malingerers" or simulators.

Treatment.—Organotherapy has given no good results. Re-education of suitable cases seems to be indicated. H. J. MACEVOY.

On the Question of Dementia Præcox. (*Journ. of Ment. Path., vol. ii, No.* 4.) *Serbski, Vladimir.*

This is an abstract by the author of a paper published in the *Journal S. S. Korsakora*, Nos. 1, 2, 1902, and read at the second Congress of Russian Psychiatrists, January, 1902. It is especially concerned in refuting Kraepelin's conception of dementia præcox. To begin with, as one and the same disease may lead to various and different terminations, Serbski considers it impracticable to base any classification on the factor termination—that is (here), on dementia,—for, according to Kraepelin, this issue is not invariable—some cases recover. The general characteristics of the disease, as they are given, impress one as being markedly vague; such qualifying adjectives (which occur often in the description) as "generally," "often," "not infrequently," "sometimes," lead him to infer that the signs to which they are applied are inconstant, not essential. Even signs relating to disturbance of attention and impairment of judgment are said not to be invariable, but conditional, in dementia præcox. While there is a close connection between katatonia and hebephrenia, and some cases of katatonia should be classed with dementia præcox, this does not apply to all cases. Katatonia as a syndroma may be met with in the course of various mental disorders. Such objective signs, again, as automatism, negativism, stereotypy, are not pathognomonic of dementia præcox or any given disease; they may be observed in many diseases. Serbski would restrict the name dementia præcox to those forms of mental disorder the fundamental traits of which are: (1) the onset of the disease takes place not later than the adolescent age; and (2) the development into a condition of mental enfeeblement of varying degree takes place rapidly or definitely.

Certain varieties may be distinguished: (*a*) a slow and progressive psychical disintegration occurs without any acute stage; (*b*) acute symptoms occur followed by dementia; sub-varieties may be differentiated—Hecker's hebephrenia, the katatonic form, the paranoidal form,—but these often merge one into the other; (*c*) dementia præcox may be