Is Dementia Præcox a Definite Clinical Entity? (1) By GEORGE M. ROBERTSON, M.D., F.R.C.P.Edin., Professor of Psychiatry in the University of Edinburgh, and Physician-Superintendent of the Royal Hospital at Morningside, Edinburgh.

To ask this question is not to throw discredit on the great work that Prof. Kraepelin has done for psychiatry. Indeed, the opinion may be frankly recorded that no conception dealing with mental disease advocated during the last fifty years has been more fruitful of beneficial results than that of dementia præcox. Out of a symptomatology which before had been more or less chaotic and disheartening Kraepelin evolved a scheme which, if it did not introduce perfect order, certainly marked a very great advance. And not the least of the benefits that psychiatry has derived from him, has been the greater accuracy of observation that his views have enforced upon all clinicians who desire to make an exact diagnosis or prognosis.

It is nearly thirty years since Prof. Kraepelin first entertained the idea that dementia præcox was a distinct disease. From an early period objections were raised, which often took the form of criticism of the name he had chosen for this disorder. It is admitted that neither the final outcome of dementia nor the invariable presence of youthfulness are essential elements in the clinical picture of the disease termed by him "dementia præcox." This anomaly is unfortunate, but no serious harm results from it, if we are not misled, and if we can recognize the types of mental disease that Kraepelin intends us to include under that designation. No one nowadays objects, for example, to the term "melancholia," although it involves a discarded theory of causation by black bile. Esquirol, however, made an attempt about 100 years ago to replace this misleading name by a new and more accurate one, but the old and familiar title "melancholia" has held its own, while Esquirol's proposed "lypémanie" is now completely forgotten. Judging by this analogy the name "dementia præcox" has probably come to stay, if it represents as definite a clinical entity as melancholia.

Other objections have been raised by eminent psychiatrists, of whom I will only mention Sir Thomas Clouston and Dr. Charles Mercier. The former was the most observant clinician we have had in our day, and his secondary dementia of adolescent insanity plainly includes a large, if not the major part of the cases now described as dementia præcox. He was satisfied that his own system

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of classification fulfilled all clinical requirements, and never adopted Kraepelin's views. Dr. Mercier, on the other hand, did not excel as a clinician, but he was our ablest and most accurate psychologist and logician. He was inclined to hold strong views and to express them strongly. He was not satisfied with the account given by Kraepelin of dementia præcox, and described it as a rubbish-heap of symptoms with about as much definition of outline as a suet dumpling.

Differentiation.

It has often been alleged against dementia præcox that under this designation there were probably collected together several groups of dissimilar psychoses which had this one feature in common—that they terminated in dementia. It is true that Kraepelin has laid great stress in making a diagnosis on the course and final result of a psychosis, and in this he is probably right. It is understood that he was much impressed, when following his cases to their termination, with the excellent recovery that some adolescent cases made and the hopeless dementia into which others fell. He decided to examine in detail the course and symptoms of these favourable and unfavourable cases respectively, and as a result of the knowledge gained by this investigation, he created his two great groups of "manic-depressive insanity" and of "dementia præcox." The whole world has now—with only minor reservations—accepted the favourable manic-depressive group of periodic psychoses, for which it was prepared by its familiarity with cases of *folie circulaire*, and with the descriptions given by French alienists. Manic-depressive insanity with its two phases of elation and depression depicts a simple, well-defined and fairly uniform disorder of a functional nature, but there is not the same agreement or feeling of certainty that the unfavourable group of dementia præcox represents as definite a clinical entity. It forms a most complex and extensive disorder, and the variety of its symptoms is bewildering. Its boundaries are vague and blurred in several directions; its many subdivisions are either fluctuating or else very different from one another. Whether it be functional or organic no one can say definitely, for the highest authorities uphold conflicting opinions on this point, and a reconciliation of these seems to be possible only on the supposition that under the term "dementia præcox" is included more than one form of mental disorder.

We will now refer briefly to some features of dementia præcox which are of importance in establishing a claim to regard it as a clinical entity or otherwise.

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Vague Definition.

In the first place, the diagnosis of dementia præcox is often difficult. Its special characteristics according to Kraepelin are a disintegration of the inner unity of the mind due to a peculiar weakening of the functions, first of feeling and acting, and finally of thinking. In the end there results a disruption of the personality and an unfitness for social life. This statement is, however, so vague that, as a matter of fact, the diagnosis is seldom, if ever, made from the presence of these phenomena, but rather from the association of secondary or accessory symptoms, such as hallucinations, delusions, peculiar actions and muscular conditions. There is no one symptom, unless it be terminal dementia, which is pathognomonic, and more than in other disorders, the onset, the course and the association together of the various symptoms have to be studied before coming to a diagnosis. The balancing of these various elements, the giving of a just weight to each associated factor and the final considered judgment make the diagnosis frequently not a certainty, but a matter of opinion.

No one can read Prof. Kraepelin's account of dementia præcox without realizing the paramount importance which he attaches to the development of a terminal dementia. It is true that he admits the possibility of recovery, but almost always grudgingly and with some qualification, and the description which he has given us of the disease has been prepared solely from the histories of patients who actually became demented. It is hard to find an adequate explanation for this severe attitude, because there is scarcely any disease of which a uniform termination can always be predicted. Even in cases of cancer it is believed that recovery occasionally takes place. The only suggestion that can be offered is that the certainty of diagnosis in a case of dementia præcox which has recovered is less than in one which ends in dementia. This diagnostic uncertainty is not only an unpleasant commentary on the fulness and accuracy of our knowledge of the symptoms of the disease, but it also impairs our ability to give a definite prognosis. The longer, however, we study this subject, the more certain it becomes that some cases of dementia præcox end favourably, and Dr. Streckel and Dr. Willey record in the April number of *The American Journal of Psychiatry* that over 13 *per cent.* of their cases recovered.

Doubtful Subdivision.

Kraepelin at one time was satisfied with three subdivisions, namely, a hebephrenic, a catatonic and a paranoid group, to which there might be added another entitled " dementia præcox simplex."

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In his last edition he has, even after eliminating paraphrenia, divided the disorder into no less than eleven different varieties. Some of these differ so widely from one another that no one but an expert would imagine they were related varieties of the same disease. Yet, in spite of these remarkable differences, there exist so many intermediate forms that it is impossible to separate the groups entirely from one another. I have observed with curiosity during the last five years (2) that very few English-speaking authorities have accepted these eleven subdivisions, and most appear to be quite content with the simple groups which Kraepelin made use of originally.

From these Prof. Kraepelin has himself removed a group of systematized delusional cases, which he has called "paraphrenia." This procedure has not been approved of by some, who believe that it is impossible to differentiate these cases of paraphrenia which he has separated from cases of "paranoid dementia præcox," which he has left behind, and certainly the relation between these delusional forms of mental disorder is exceedingly close. If the four varieties of paraphrenia be added to the eleven varieties of dementia præcox, we have no less than fifteen subdivisions.

The conclusion to be drawn from this alarming process of subdivision into eleven or fifteen groups is, that the course and symptoms of dementia præcox must vary to an extraordinary extent to make such an operation possible. This feature of itself throws doubt on the unity of the disease. Doubt is, however, also experienced as to the value of these numerous subdivisions, seeing that it is admitted that the different groups pass into one another by insensible gradations.

Indefinite Outline.

The limitations of dementia præcox are also vague and uncertain, and in some directions the outlines are so hazy that it seems to pass smoothly into other forms of mental disorder without overstepping any natural or obvious line of demarcation.

I have already mentioned that paranoid dementia præcox passes insensibly into paraphrenia, and it is further believed by many that paraphrenia runs as gradually into paranoia. If doubt exists as to whether paraphrenia should be regarded as a form of dementia præcox or as a separate disorder, there is reason to carry forward the same doubt as to the separation of paraphrenia from paranoia.

Further, there are many cases of paranoia which resemble very closely the hypo-manic phase of a delusional type of manic-depressive insanity. Such cases every now and then prove difficult to

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classify, and have to be carefully observed. If the case recovers, we may assume that it was one of manic-depressive insanity, though it may have continued for years. On the other hand, if the patient does not recover, the diagnosis of paranoia or paraphrenia may be made.

In the next place, there are periodic and recurrent cases of apparent mania which may also be classified under dementia præcox. Kraepelin admits the difficulty created by this type of case, and states that he at one time regarded them as cases of mania; now he regards them as cases of dementia præcox, because after the lapse of time symptoms of weakness of mind develop in many of them.

In the fourth place, some acute cases of dementia præcox with confusion and hallucinations also pass insensibly into cases of delirious or confusional insanity—the so-called "infective-exhaustive-toxic insanity." In some cases where the cause is very definite, the course short, and the recovery perfect, no one would think of confusing the case with dementia præcox. But there are other cases which run a prolonged and an unfavourable course in which it is impossible to be certain of the diagnosis. During the war many cases diagnosed as dementia præcox recovered, and it is certain many of these were cases of confusional insanity due to exhaustion.

It is thus impossible to avoid coming to the conclusion that the limits of dementia præcox are vague and undefined in several directions, and particularly that it appears to run by insensible gradations into confusional or delirious insanity. Practically all the accessory symptoms that occur in dementia præcox on the strength of which the diagnosis is so often made, such as unsystematized delusions, numerous hallucinations, disorders of will and catatonic phenomena, are well seen in cases of delirious insanity.

Among other complications may be mentioned the possibility of a combined psychosis, for recurring manic-depressive phases may occur in dementia præcox. Conversely we also meet with cases of mania and melancholia associated with symptoms of dementia præcox. In these it is suggested that there exists a condition of latent dementia præcox, which has been made manifest by the attack of manic-depressive insanity.

Uncertainty of Ætiology and Pathology.

The greatest differences of opinion exist as to the cause of dementia præcox. Kraepelin believes there is some connection between it and secretions from the reproductive glands. The most definite anatomical changes in these glands which have yet been

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found have been described by Sir Frederick Mott. On the other hand, a few years ago ovariotomy was extensively performed at least in one mental asylum, and, it is said, with excellent results. The contrary opinion of the effects of this mutilation now seems to prevail, and ovarian extract is sometimes prescribed. The thyroid and other glands have also been accused, and thyroid extract has been given for the treatment of the disease, as well as partial removal of this gland. Toxæmia of an organismal origin has also been blamed with some reason, and the changes in the internal secreting glands have been described as secondary. On the other hand, a purely psychic origin has been put forward by many as a very important factor in ætiology, but this has received no support from Kraepelin himself. Jung apparently would wish to have a footing in both camps, and he has put forward the novel theory that an emotional complex lies at the bottom of the trouble, but that possibly it operated by producing a toxin. This is very improbable unless the effect is produced through the action of the emotions on the internal secreting glands.

In spite of the suggestion of the psychogenic nature of dementia præcox, Alzheimer has described extensive changes in the cells of the second and third layers of the frontal and temporal lobes with an increase of neuroglia in the deeper layers. These observations were made in cases that suffered from acute symptoms, and it is quite possible that in these there was a severe toxic infection.

Such a surprising variety in the cause and in the findings, here again produces a state of great uncertainty, and the conception of a definite disease with a more or less uniform causation and pathology does not receive support.

Not one Disease, but a Group.

The effect of all these observations encourages the idea, which Bleuler advocates, that in dementia præcox we do not have one disorder, or one disease process, but a group of diseases, which have this feature in common—that they tend as a rule to produce dementia.

Explanation of Diverse Manifestations.

On the other hand, certain considerations tending to support a contrary conclusion must not be forgotten. In the first place a specific cause may produce very various mental symptoms, as is seen—for example—in the various forms of alcoholic insanity and in general paralysis. The same cause may be weak and slow in action, or it may be intense and sudden, and the results

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will be very different. There may also be numerous intermediate actions and results. Further, it may act extensively and generally, or the action may be local, and the symptoms produced will vary. They will also vary depending on the particular locality affected. Personal idiosyncrasies, of course, exist, and heredity is a factor always to be considered in relation to such a single cause.

In the second place the cause of an attack of insanity is seldom or never a single or a simple one. We may assume that invariably several factors act in combination, the effect of each of which can never be differentiated in a particular case. The number of possible factors is very great and they also vary greatly in their nature. As a result it is conceivable that the different forms of insanity tend to merge into one another, depending as their symptoms do on the combined action of so many agents in varying combinations. This is a view which has been suggested by Sir Frederick Mott among others, and it has much to be said in favour of it. While it is quite certain that we see cases which conform exactly to the types described in our text-books, we also see many other cases which are intermediate between these recognized types. To use a simile which I have employed elsewhere, the various forms of insanity appear to be like the colours of the rainbow. In the middle of each band we have the colour perfectly pure and quite unmistakable from every other colour, but at the margin of the band this colour merges insensibly into another which is totally different from it. It is, however, impossible to say exactly when and where the one colour passes into the other. May it not be possible that the apparently different varieties of dementia præcox may be explained in one or both of these ways?

Prognostic Efficiency.

If we cannot assert with certainty that dementia præcox is a definite unity, we must all agree that we are indebted to Kraepelin for having supplied us with an accurate and minutely detailed account of the symptoms which are associated with unfavourable types of mental disorder. Sir Thomas Clouston, who described the secondary dementia of adolescent insanity with wonderful vividness and accuracy, did not give us any contrasted and detailed analysis of those cases of adolescent insanity which would recover, as compared with those which would pass into secondary dementia. It may be said of Kraepelin that he has enabled us to predict from the symptoms with a remarkable degree of certainty the types of insanity which will recover, and those which in the vast majority of cases will not do so. Whether dementia præcox will be found

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in the future to consist of three or four different forms of mental disorder or not, we are nevertheless now able to group the unfavourable types of psychoses together, and this prognostic ability is invaluable.

Patients suffering from typical manic-depressive insanity practically always recover if they are young and in good health. On the other hand, patients presenting the symptoms of the typical varieties of dementia præcox seldom recover. We also see a large number of forms which are intermediate between these recognized types, and in these cases what prognosis is to be given? The practice which I have followed for many years has been to give a good prognosis in cases of typical manic-depressive insanity, and an unfavourable, but not hopeless, prognosis in cases of typical dementia præcox. In the intermediate cases the prognosis has inclined proportionally to the favourable or to the unfavourable side, depending upon whether the symptoms partook more of the nature of manic-depressive insanity or of dementia præcox, and the extent to which they did.

Conclusion and Acknowledgment.

In conclusion, therefore, while dementia præcox may not yet have established its claim to be considered a definite clinical entity, and while it is possible that under this term there may be included several varieties of mental disorder, all of which tend to develop one or other of the eleven different forms or degrees of terminal dementia described by Kraepelin, we are nevertheless all indebted to him on two grounds.

In the first place, he has enabled us, from a study of the symptoms of our patients, to differentiate with a great degree of success between cases which will terminate favourably, and those which will terminate unfavourably.

In the second place, he has benefited psychiatry by imposing upon all conscientious physicians the necessity of following the course and of observing the symptoms of their patients with the utmost care and accuracy.

(3) Since Dr. Mary Barclay's translation of Kraepelin's *Dementia Præcox*, published by E. & S. Livingstone, 1919.

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