SCHIZOPHRENIA IN THE FORCES.

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COMPARATIVELY little attention has been devoted to schizophrenia in the extensive psychiatric literature which has accumulated during the War. While man-power was more important than Man, it could hardly be otherwise, for those who succumbed to this illness were usually invalided even in the event of full recovery. But there was perhaps another reason to be found in the belief that schizophrenia was merely an old friend of peacetime interjecting itself inconveniently into wartime medicine, but not having any special or unusual qualities save perhaps an acuter onset or a better prognosis.

There are, however, some interesting lessons to be learned from a study of the disease as it occurred during wartime because of the unusual surroundings in which these patients found themselves. They tended to come under medical notice much earlier than in civil life, because of oddities, unpunctuality, and minor disciplinary offences which encountered official opposition and punishment; and because the simple environmental adjustments, which can postpone disablement, tended to be difficult or impracticable. A small and well organized team in the Navy, a relatively small number of hospitals, and comparative ease in gaining access to previous clinical records, made it possible to trace the course and development of these illnesses with unusual completeness. Once the fact had been elicited from the patient that he had previously been in hospital, it was nearly always possible to obtain the clinical records covering the previous admission, and indeed not infrequently to find that he had been under one's own care on that occasion. It was, for example, interesting to note how many of these cases of florid schizophrenia had previously been in hospital with anxiety or depressive reactions, and how many had been in minor trouble, and having been investigated were labelled psychopathic personality because the behaviour disorder was the only presenting feature at that time.

It is proposed in this paper to make a few observations on the mode of onset of the disease, and on certain aetiological factors in so far as study of the illness in the Forces in wartime shows features that are uncommon or less common in civil life; and to record the difference in therapeutic results that followed the introduction in the treatment unit of deep insulin shock.

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Onset of the Disease.

Schizophrenia is a very insidious disease and its development may be spread over many years. In civil life it is usually possible for the patient to adapt himself progressively to his reduced capacity, and the clinical picture is what is sometimes described as a " falling off " in performance as the patient slowly adjusts himself to his increasing disability by changing his employment, or by working less hard, or less efficiently. This process is not always feasible under service conditions, and incapacity is detected at a very much earlier stage. Moreover the obviousness of the disability to the patient himself may produce profound depressive, anxious, or hysterical reactions from the effort to keep pace with the tempo of service life. Neither affective loss nor affective incongruity are early signs of schizophrenia. On the contrary, most patients show a distinct emotional disturbance when they come to medical notice for the first time. Depression may be marked and typical, and the diagnosis of schizophrenia may not be obvious, or may not be made at all, until treatment by E.C.T. alleviates the depression and reveals schizophrenic thought disorder beneath.

Hysterical reactions are of particular interest, for the diagnosis of hysteria is too often regarded as an adequate explanation by itself of some motor manifestation for which " no organic cause can be found." Yet such a diagnosis is somewhat analogous to a surgical diagnosis of " limp " without ascertainment of the pathology and its site. It is in fact an objective and superficial description of behaviour without determination of the setting in which the reaction occurs. This setting may be organic—for a case of disseminated sclerosis or of post-encephalitic Parkinsonism may easily be driven to severe hysterical limping, if the nervous system of either is passed as normal by a sufficient number of doctors. Or the setting may be an hysterical character or an involutional depression; but what concerns this paper is that it may be simple schizophrenia. In any event it is unwise to be too easily satisfied with the diagnosis of hysteria without careful study of both psyche and soma.

The hysterical psychotic reactions may also be mentioned in this connection. An hysterical stupor in an hysterical personality may, in the acute stage, be quite impossible to differentiate from a psychogenic stupor in a schizophrenic setting. The diagnosis will become clear under sodium amytal analysis, and the reaction itself is usually cured fairly readily. The Ganser reactions have been recently described by Anderson and Mallinson (1941), and by Stern and Whiles (1942); the last two authors describe the condition as occurring " in people who, although mentally deranged, not realizing this, wish to appear so." This coincides in essentials with the writer's experience of the syndrome, for all the cases seen were psychogenic reactions, precipitated by an insupportable situation, and occurring in a setting of chronic schizophrenia.

The schizophrenic episode or acute schizophrenic reaction is a familiar phenomenon in wartime, and some cases of this kind were described by Kasanin (1933) under the title of acute schizo-affective psychoses. It may be, however, that the concept of the acute schizophrenic reaction is not always entirely

satisfying. Some of these cases may be toxic, or dysergastic; and some may be affective. For personal privation and hardship may sometimes liberate emotion of a very violent kind, so strong and intense that clouding, bizarre behaviour, and subsequent patchy amnesia may be evident. The writer has seen cases of self-injury, including the carving of a cross on the forearm, and even mutilation of the sex organs, inflicted in these intense emotional states with what seemed to be an inadequate reason on the surface, but which were quite intelligible in the light of the circumstances at the time and having regard to the trends of the personality. But apart from these, it is likely that a good many schizophrenic episodes are exacerbations in a setting of established schizophrenia—a concept which amounts to far more than a quibble on words, for there is little doubt that many of these cases benefit immeasurably from insulin therapy, and it is often clear in retrospect that a state accepted as normal even by a wife or husband was really far below that level. This is sometimes evidenced by statements such as "I haven't seen him so well for years."

Aetiological Factors.

One hundred cases admitted to the hospital before it was possible to begin insulin therapy have been studied; and a further 100 cases treated with insulin have been compared with them. Both groups had in common the usual symptomatic forms of therapy—narcosis, convulsive therapy, and so on, the last-named being restricted to five or six shocks; and both had the benefit of a well-developed occupational centre, and social therapy under the leadership of one who was also a very good physical training instructor.

Therapeutic results have been assessed in four groups—certified, marked invalidism, slight invalidism, and cured. The difference between the first two of these is indistinct and unrelated to the malignancy of the disease process, and for many purposes they have been considered together. Whether a man was certified or not depended largely on the views of his relatives, their economic situation and ability to care for him, and on whether the illness took a productive aggressive form; but there is no reason to suppose that a docile and disabled cabbage who goes to his home to sit by the fire is any less ill than the paranoid and hallucinated patient taken protesting to his mental hospital. The criteria for cure were severe and are difficult adequately to verbalize. They may be summarized as including a lively but restrained affect, a realization of having been ill, and a reasonable concern about the prognosis, a genuine spontaneity in conversation and behaviour, and future planning in an economic sense. The latter might be shown by a desire to learn a trade if an active service rating learned he was to be invalided. The third group showing slight invalidism included the remainder, who were free from obvious symptoms—hallucinations, delusions, feelings of influence, and so on, but in whose cases there remained some hypo-ergy, some emotional flattening, lack of concern about the illness, and lack of curiosity about the future. Assessment at this stage is on the lines of early diagnosis and the features described by Kant (1940)—the possibility of empathic understanding, and the presence of residual signs of motor impairment, must be the guide.

The first 100 cases were analysed to determine the period elapsing between entry into the Service and the date of social breakdown, which last date coincided usually with admission to hospital. The results were as follows:

Under 6 months	15 per cent.
,, 12 ,,	34 ,,
,, 18 ,,	46 ,,
,, 2 years	65 ,,
,, 2½ ,,	76 ,,
,, 3 ,,	86 ,,
,, 3½ ,,	89 ,,
,, 4 ,,	90 ,,

The average period of service was 18 months, and it will be seen that two-thirds of the cases had broken down within two years. Only 10 per cent. of the total had served for two years or more. The age distribution was as follows:

Under 20	34 per cent.
,, 25	76 ,,
,, 30	84 ,,
,, 35	94 ,,

The average age was 24 years, and it will be seen that 75 per cent. of the cases were under 25 years of age. Only 6 per cent. were over 35. Only 14 per cent had gained any sort of promotion, though this is bound up to some extent with the shortness of the period of service. The average stay in hospital was about 6 months, this being dictated by the desires of relatives and shortage of beds, rather than by any medical assessment.

The results in the first 100 cases were as follows, and it may be stressed again that the classification is as outlined above, and bears no relationship to what is known as the "social remission." This last term would have included many in the "marked invalidism" group. This stringent classification has been adopted in order that a comparison may be made later with the insulin-treated group from a qualitative rather than a quantitative point of view.

Certified	24 per cent.
Marked invalidism	61 ,,
Slight invalidism	13 ,,
Cured	2 ,,

A careful analysis was made from the clinical and service histories of the stresses to which these cases had been exposed. Three groups have been differentiated as shown below. Severe stress means exposure to enemy action or the imminent threat of it, over periods of many months, domestic anxiety such as infidelity reinforced by separation due to foreign service, long periods of service in hot and humid climates with little to do, and so on. Moderate

stress means small doses of the same things or longer periods of less exacting strain.

Stress.	Certified; marked disability.	Slight disability.	Cured.
None (41)	38	1	2
Moderate (31)	26	5	0
Severe (28)	21	7	0
100	85	13	2

It will be seen that the percentage remaining with a marked disability, after 6 months, is the same (about 75 per cent.) in both moderate and severe groups, which bears out the presumption that such exposure does not of itself introduce an element of malignancy into the illness, which was not previously there. The high incidence of disability in those exposed to no stress is correlated with the fact that the average period of service in this group is only 9 months, compared with the average of 18 months taken over the entire series. These were obviously progressive cases of bad prognosis, probably brought to medical notice earlier than they might have been, by virtue of being in a service, but not otherwise materially affected.

It seems reasonably certain that given a schizophrenia, the impact of a service upon the patient may have two effects. If the illness is progressing very slowly, the difficulty in adapting to service life may produce a pseudo-neurotic reaction of anxiety or depression, or a hysterical avoidance, or a more profound disturbance such as a stupor, or a Ganser state. This reaction of itself is easily dealt with, and indicates little more than the presence of an underlying disability. The prognosis of the latter will depend on other factors, but not at all on the psychogenic episode itself. Alternatively—and this is the second possibility—if the course is more rapid, it becomes obvious rather more quickly under service conditions, and the illness is recognized for what it is, after a period of passable adjustment which may vary in length, but is not very long. How long it is will depend largely on personality preservation, and whether the reaction to the disability is asthenic enough to obviate comment from others. That stress will precipitate schizophrenia where none might otherwise have appeared is a proposition for which there is little or no evidence if the acute episodes mentioned above be excluded.

Changes Effected with Insulin Treatment.

The technique of deep insulin shock is sufficiently well known and need not be detailed here. The results of treatment of the second group of 100 cases were as follows, referring again to the method of classification used for this analysis:

Certified	18 per cent.
Marked invalidism	12 ,,
Slight invalidism	14 ,,
Cured	56 ,,

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It will be observed that the figure of certified and marked invalidism has fallen from 85 to 30 per cent. The number of cases either cured or with slight invalidism has risen from 15 to 70 per cent., and the percentage of cures themselves from 2 to 56 per cent. This paper is not concerned with the long-term results of insulin treatment for which careful "follow-up" studies will be required, and therefore a mere quantitative assessment of social remissions has not been attempted, for it would have no meaning. The cured group has been differentiated in the way it has because the writer felt so strongly that the qualitative difference after insulin treatment was so striking. An assessment of lively affect, of spontaneity, of active interest and attention—all these things are hard to measure, and are impressions which rest on less secure ground than more tangible phenomena like the ability to return to work. What the above figures mean in essence is that the quality of remission observable in 56 per cent. of cases treated with insulin was only observed in 2 per cent. of cases not so treated.

This qualitative difference, most prominent in the volitional field, is particularly notable in the cases described above who recover from schizophrenic episodes. Many of these rather dull and quiet personalities show a most remarkable personality change after insulin shock.

The best results are obtained with insulin when a single doctor is in daily charge of the Unit, though this may not always be practicable, or on other grounds, entirely desirable. Only by constant practice and familiarity can a wholesome respect for a rather dangerous treatment be combined with a freedom from "nerves." A suitable addition of electro-convulsive therapy will make a good deal of difference, and in this series, 45 per cent. of the cases had each an average of six fits throughout the course. The main indications for E.C.T. were volitional disturbance persisting when thought disorder was in abeyance, associated depression, and the "plateau phenomenon"—recovery having proceeded to a considerable extent and then having stopped. It has also the further use, as is well known, of sensitizing the insulin-resistant.

Other approaches to the psychosis must not be neglected, and the writer's practice was to keep all insulin patients in one ward, where they contrived (to a remarkable extent for schizophrenics) to develop quite a family spirit, and even something of a class snobbery. Occupational therapy and the attentions of a social therapist were given the fullest scope in this ward, and indeed almost every activity in the unit was designed with the object of giving priority to these patients. The average number of comas was 32, the range extending from 23 to 46, with the vast majority at about 30 as being the minimal number permissible in the ordinary case, and also the maximum that time could be spared for, in a remitted case when pressure on beds was heavy.

Summary.

1. An account is given of some of the more deceptive modes of onset in schizophrenia, and seen perhaps more commonly, and in purer culture, in the Services than in the out-patients of civil life.

2. Some observations are made on the schizophrenic episode and on hysteria as a symptom.

3. A subjective method of assessment has been used in order to stress the qualitative advantages of insulin shock treatment.

4. The relationship of stress to the psychosis is discussed.

Acknowledgment.

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