Section of Psychiatry

President—E. O. LEWIS, D.Sc., M.R.C.S.

[*March* 13, 1951]

DISCUSSION ON THE TREATMENT OF DEPRESSION [*Abridged*]

Dr. W. Mayer-Gross, *Department of Clinical Research, Crichton Royal, Dumfries*: During the last sixteen years the therapy of affective disorder and especially of depression has completely changed, thanks to the discovery by Meduna of the palliative influence of induced epileptic convulsions on certain mental conditions. Reports abound which confirm the efficacy of convulsive treatment, especially in endogenous depression. Few who have practised it, and seen the results of the treatment, would be willing to withhold its benefit from patients whose distress may be shortened thereby. This humane attitude is probably one of the reasons why controlled statistical proof of the results is so difficult to obtain. Thus nobody has, to my knowledge, described a series of patients of whom only every second consecutive case of depression received convulsion treatment. Other difficulties in evaluation are the periodic course of affective illness and the irregular distribution in time of the periods of depression and normality. An approximate individual pattern can be discerned for each single case; but even then the depressive periods tend to become longer with increasing age of the patient. Amongst different patients the pattern of periodicity shows such great variations that the quantitative assessment of the result of a treatment in a follow-up study needs very careful matching of cases and, even then, can be only roughly correct.

Those workers who present control material have frequently taken it from an earlier era, before convulsive treatment was introduced. In view of the self-healing nature of depressive illness, a longer follow-up time gives such controls a bias against the treatment, making the material unsuited for comparison. A bias in the same direction arises when a worker includes among his controls those patients who did not receive convulsive treatment because their illness was considered too mild or of too short duration to deserve such drastic physical therapy.

Recently published results from the Edinburgh Royal Mental Hospital (Karagulla, S., 1950, *J. ment. Sci.*, **96**, 1060) based on selected control material have been justifiably subjected to serious criticism (Slater, E., 1951, *J. ment. Sci.* In press). *If a series of patients treated by convulsion were found to compare favourably with or even to surpass such biased controls, it would be a most definite proof of the effectiveness of the treatment.*

Follow-up studies at Crichton Royal were carried out with the assistance of Miss Barbara Hickson, S.R.N., D.N., in 1949 and 1950. One hundred patients with manic-depressive psychoses who were treated by convulsions between 1940 and 1946 were followed up in 1949. They were drawn at random from this diagnostic group with the proviso that they should have had at least two previous attacks of affective disorder. At the same time, one hundred cases of depression over the age of 40, without any history of previous mental illness, were followed up; they were drawn at random from the diagnosis "involutional melancholia". The period since discharge varied from two to nine years for both groups. Four manic-depressive patients could not be traced; otherwise, full information was obtained through personal letters from the patients, their relatives, family doctors' reports, social workers' interviews and reports from hospitals.

Unfortunately no suitable control cases, contemporary or from the pre-convulsive era, were available from Crichton Royal. The comparison, however, of our total of depressions with the group of controls from the Edinburgh Royal Mental Hospital, including depressives of all ages who were treated at approximately the same period, though not with convulsions, shows the superiority of the physical therapy (Table I). The cases designated "recovered" and "improved" by Karagulla are by us listed respectively "fully recovered" and "socially recovered". If these two groups are taken together, the difference in favour of the treated group is statistically significant at the 0·05 level; this, in spite of the undoubtedly biased composition of the control material (Slater). Slater also drew attention to the connexion, among the control material, between the greater number of deaths and the absence of treatment.

Among our manic-depressive series were 10 patients with manic phases only and 22 with both manic and depressive phases, while 68 were depressives. As regards the *tendency to relapse*, we confirmed the finding of many workers that convulsive therapy has no influence on the individual cycle of the patient. It neither lengthens nor shortens the free intervals. If in suitable cases one compares the rhythm of attacks before and after treatment by convulsions, one finds it undisturbed whatever happens to the single attack. However, relapse in those patients who became ill for the first time in middle age is of special interest. 30 out of 100 such cases were found to have relapsed during the follow-up period and to have recovered again, in most instances after another course of treatment. Only 3 patients had remained invalids in hospital all the time. One can regard these relapses as partial failures of the therapy which has interrupted an otherwise chronic illness for a period but has not abolished it entirely. Certainly, one cannot conclude that the number of relapses is increased by convulsion treatment, when one recalls the prolonged course of so many untreated involutional depressions which can last up to seven or eight years and in more than half of the cases can endure for the rest of the patient's life.

It is also noteworthy that, on the average, the condition of the patients of the *involutional group* at the time of the follow-up was strikingly better than that of the much younger manic-depressive total; it was even better than that of the depressive group of this series alone, which is obviously a sign of the greater tendency to relapse among the periodic manic-depressives.

When the influence of *age* was analysed within the involutional group, it was found that the best results of the treatment were among the persons below 55 and that the number of relapses increased with age. In the manic-depressive population the significance of age was not discernible.

The relation of *duration of illness before convulsion treatment* to the result of the treatment was established by subdividing the total into three groups; those under one year, those one to two years and those over two years. It was found that the results as expressed in the grading and in the figure of relapses were much better in those patients whose illness had lasted less than two years before convulsive therapy (Table II). As one would expect, the longer it has been in existence the more strongly will the abnormal behaviour pattern resist attempts to disrupt it.

Treatment was usually given in *series of six convulsions*, and the majority of cases received one series only. One would have expected that those patients who needed several series before discharge would have relapsed more frequently and would have a less favourable result. However, grading and relapses seemed independent of the fact that one or several series were needed to achieve a satisfactory result. When the *number of fits* was counted, there was only one category which showed a smaller proportion of recoveries and a somewhat greater proportion of relapses: viz. those involutionals who received less than six convulsions altogether. The differences in all other categories were insignificant.

TABLE I.—RESULTS IN CRICHTON PATIENTS TREATED BY CONVULSION THERAPY COMPARED WITH EDINBURGH PATIENTS NOT SO TREATED

Grades	Manic-depressive		Involutional depr.	Total of 168 cases of depr. % (Crichton)	Controls 256 cases of depr. % (Edinburgh)
	Total	Depr. only			
Fully recovered	63	44	72	69·0	34·8
Soc. recovered ..	9	7	6	7·7	33·2
Home invalid ..	9	7	11	13·0	18·0
Hosp. invalid ..	7	1	3		
Died	8	6	8	8·3	14·0
Untraced ..	4	3	—	1·8	—
Totals	100	68	100		

TABLE II.—INVOLUTIONAL DEPRESSION TREATED BY E.C.T. LENGTH OF ILLNESS, RESULT OF TREATMENT AND RELAPSE (Hospital readmissions in brackets)

Grades	Length of illness before E.C.T.					
	Under 1 yr.		1–2 years		Over 2 years	
	No relapse	Relapsed	No relapse	Relapsed	No relapse	Relapsed
Fully recovered ..	40	9 (8)	11	1	8	3 (1)
Soc. recovered ..	2	—	—	1 (1)	1	2 (2)
Home invalid ..	2	2 (2)	1	1	2	3 (2)
Hosp. invalid ..	—	2 (2)	—	—	—	1 (1)
Died	1	3 (1)	—	1 (1)	2	1
Totals	45	16	12	4	13	10 = 100

Dr. W. Clifford M. Scott, *London Clinic of Psycho-Analysis*; *Bethlem Royal and Maudsley Hospital*: The chief contribution psycho-analysts have made to the treatment of manic-depressive depression has been several hypotheses concerning the pathology of (*a*) abnormal depression and guilt and (*b*) normal depression and mourning.

Psychologists have, in general, avoided the study of normal depression and mourning. In standard psychological textbooks mention of depression and mourning is so rare that it almost seems that psychologists consider such normal emotions too difficult to study. Psychiatry deserves more from psychology. Psycho-analysts have shown more interest in schizophrenia than in manic-depressive disorders. Psycho-analytic hypotheses point to the fact that the depressive problem lies mid-way between the neuroses and schizophrenia, both genetically and in regression.

Psycho-analysts tend to discuss experience in terms of instinct and the derivatives of instinct and again in terms of object relationships and changes in object relations. The earlier psycho-analytic instinct theories helped our understanding of the neuroses, but when these theories were applied to the psychoses they proved less useful. Psychoses in which "the person as a whole", or the attitude of the person to nearly all aspects of reality is involved, bring the psychiatrist up against the origin of and nature of the ego/non-ego division right away. The early forms of love, hate and anxiety have much to do with the creation of this division, but the earliest forms of depression and guilt have even more to do with the earliest forms of development of the ego/non-ego division.

The psycho-analytic hypothesis is briefly as follows: when extra-uterine development reaches a certain point (the point depending on maturity at birth, on intelligence and on the preceding emotional events) maturation and integration both in respect to the ego and the non-ego (chiefly the mother) occur. The ego becomes a loving, hating and fearing ego and the non-ego becomes both loved and loving, hated and hating, feared and frightening. Out of this integration emerges depression as an emotion. In other words, depression emerges when the infant realizes and fears that it, itself—a continuing self—can love the mother it hates (the new fear being that it will destroy the mother it loves), and at the same time realizes and fears that the mother (the one and only mother—and now a continuing mother) is both loved and loving, hated and hateful, feared

and frightening and may be more hateful than loving. The result of this emergence is usually, of course, that development proceeds and increased use is made of love to prevent the ego from hating and to prevent the mother from being hateful. But, instead of progression, the result may be regression to a state of disorganization or splitting in which the loving and hating activities appear as if they were activities of different egos and the loved and hated people, &c., appear as if they were different people. When progression does occur the ways of loving and hating change and the ambivalence may be shown in any zone—oral, anal, urethral, genital, &c. The emergence of depression occurs when the infant is still dominated by feelings of love and hate which are predominantly connected with oral satisfaction and consequently during the time when people are sources of oral satisfaction. This fact has led many psycho-analysts to try to discover evidence of characteristic constitutional features of oral ambivalence in those who show MD disorder. Whether the chief constitutional aspect is to be found in greater pleasure being connected with oral activities or a greater capacity to focus rage in the oral zone or a greater capacity to change with high speed from pleasurable to hateful activities at this zone, I do not think psycho-analysts can say. There seems to be evidence for each possibility (Scott (1948) *Brit. Med. J.* (i) 538).

With regard to the implications of this hypothesis for treatment I will discuss three points: (1) Meyerian psycho-biological treatment; (2) convulsive treatment; and (3) psycho-analytic treatment.

(1) Meyerian psycho-biological treatment in its detailed attention to all aspects of the present situation and in its view of personality as a balance between a multitude of varying factors has achieved good results. Meyerian diagnosis, recognizing many mild manic-depressive depressions as such rather than as anxiety states and many severe manic-depressive depressions as such rather than schizophrenic states, has been adequately described by others. The value of the Meyerian personality study approach is in its detail—in its recognition that in a psychosis the whole personality is involved and that in treatment the multitudinous ways in which the symptomatology may be shown must be adequately handled. Many of his students have reported that Meyerian treatment may be lengthy.

(2) Regardless of whether the patient has had convulsive treatment previously, during the psycho-analytic treatment of depressions one may have to help the patient cope with hate which is shown in and with the whole body to a hated person identified with his whole body. In such situations rapidly arising outbursts of murderous rage which can only be compared to epileptic furor, sudden attempts at suicide or sudden outbursts of loving may occur, each of which may be followed by sobbing depression. The resistance against such reactions can be observed just as resistance could be seen clinically against chemically induced convulsions. In E.C.T. the time between stimulation and overcoming the resistance to convulsion is too short to observe resistance clinically. The only evidence I have of the repetition of resistance during psychotherapeutic treatment is with patients who have had E.C.T. who, when near to the spontaneous convulsion-like phenomena already described, remember and forget severe transfrontal pain. I discussed these problems at greater length in 1946 (*Int. J. Psych. Anal.*, **27**, 152).

(3) In 1936 I began to treat manic-depressive disorders by psycho-analysis. Of the last 350 patients I have examined in private practice approximately 20% (67) were manic-depressive depressions. The age and sex range was: 0/19: M. 0, F. 1; 20/29: M. 7, F. 8; 30/39: M. 13, F. 8; 40/49: M. 12, F. 7; 50/59: M. 5, F. 4; 60/69: M. 0, F. 0; 70/79: M. 1, F. 1. Associated severe problems other than the usual range were: Addiction: alcohol, 3, paraldehyde, 1; asthma, 1; rheumatoid arthritis, 1; pylorospasm with severe vomiting and loss of weight, 1; active peptic ulcer, 1; sequelæ of gastrectomy, 1; alopecia, 1; psoriasis, 1; pyrexia of unknown origin, 1; tinnitus, 1; high blood pressure, 2; disseminated sclerosis, 1; epilepsy, 1; oscillating weight, 1; active homosexuality, 3.

Many patients had seen one or more psychiatrists previously—thus the group is by no means unselected. 6 had had previous psycho-analytic treatment. Of the 67, 17 were advised hospital treatment and three of these were advised E.C.T. by me. 7 were advised Meyerian psychotherapy. 48 were advised psycho-analytic treatment. 31 of these 48 received psycho-analytic treatment. 18 of these were treated by myself.

9 had had E.C.T. or chemically induced convulsions previously—1 had received a series of insulin comas. These 9 were advised psycho-analytic treatment. In none of the 5 of these 9 who accepted psycho-analytic treatment was it considered that the convulsive treatment helped the psycho-analytic treatment. In one patient during treatment the memory of the painful electrical stimulus seemed to add to the complexity of the reaction.

Two patients gave up psycho-analytic treatment to have E.C.T. One patient had had E.C.T. twice before—the first time with good result (he stressed the fact that during E.C.T. he had had an orgasm during each treatment)—the second time with poorer results. During the beginning weeks of psycho-analytic treatment he realized that his whole personality would become involved in the treatment and he wished to avoid the implications of radical change. The second patient had to cope with the problem of severe jealousy of his wife which increased soon after treatment began. Both he and his wife were in a bisexual conflict and his wife's demands for a quick result led to his obtaining E.C.T.

Suicidal impulses were, of course, common—in 6 treated by myself they presented a very severe problem and in 4 of these murderous impulses added to the complexity of the situation.

With 14 patients good results were obtained during psycho-analytic treatment—one has been described elsewhere (Scott (1948), *J. ment. Sci.*, **94**, 767). With 4 poor results were obtained—2 of these I have already mentioned. Enough has been said to give a picture of a possibility other than that put forward by alternative approaches.

Dr. Gerald Garmany, *Physician-in-charge of Psychiatry, Westminster Hospital and Westminster Children's Hospital*: It is sufficient for our purpose here to repeat the well-known definition of *depression* as a condition dominated by an unpleasant affect which is not transitory, which is unaccompanied by schizophrenia or organic brain disease, and which is not secondary to other symptoms of ill-health.

As Dr. Mayer-Gross has pointed out, it is customary to attempt a differentiation between endogenous and reactive depression. I would perhaps re-phrase his description thus: "because it is difficult to draw a line of distinction in one case, for that reason I would favour the concept of a continuous scale of intermediaries

while not jettisoning differentiation". Both, in effect, say that black and white can co-exist with grey of various shades.

Despite these difficulties, we have attempted an analysis of 56 cases of depression, seen and treated by E.C.T. in the psychiatric out-patient department of Westminster Hospital, and have attempted to separate them into endogenous and reactive forms. We have borne in mind that reactive depressives have sometimes a history of previous attacks; and equally that endogenous depression, as judged by the customary clinical pattern, sometimes appears to be precipitated by external events, though sometimes this appearance is spurious when precipitant is merely depressive content. On the whole, however, endogenous depression tends to come "out of the blue" and its content is depressive rather than topical. There may have been previous circumscribed attacks and the personality may have been hypomanic or depressive: and the family history is sometimes striking. The clinical picture may show psychomotor retardation or self-reproach; and generally there is less reactivity to a superficial, encouraging approach. Very important in diagnosis in the early case is the presence of early morning waking, vacillation, and diurnal variation of mood. The factors leading to the description of a case as one of reactive depression are in general the converse of these.

The 56 cases analysed in Fig. 1 represent a consecutive series treated with E.C.T. and therefore not a consecutive series of depressives, for those treated in other ways, including psychotherapy, have dropped out. The involutional cases have also been omitted as constituting a separate problem large enough to require a contribution on its own. It may be noted, however, that within the span of this series no case of depression was sent to a mental hospital. The series therefore excludes mild cases but not serious ones, and the table gives no information about the proportion of cases requiring E.C.T. since it deals only with those who in fact received it. It should be observed too that the results represent *immediate* responses, for the immediate prognosis is of great practical importance in medical practice. Many of the cases described as improved have in fact been cured by subsequent psychotherapy. It is my impression that we are rather more conservative in the use of E.C.T. than is usual, but that is of course merely an impression and I can adduce no proof.

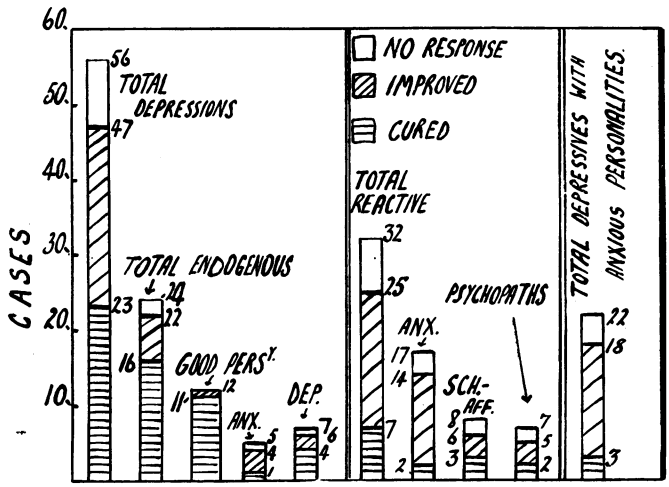

FIG. 1.

The criteria of "cure" are severe and in essence mean a symptomless patient. By a good personality is meant one who has shown in general a robust response to the ordinary buffets of life and to its more serious traumata, one who has been reasonably adequate in his social adaptation, and has adjusted reasonably well to work and marriage when the latter has been undertaken. The acute schizo-affective states are in line with the concept of Kasanin and have been separated because we were in some doubt about them.

I think certain deductions may be made from this series which coincide with one's general impressions. Firstly it is evident that a good personality is an excellent thing to possess when having a depression, and does in fact bear very materially upon the prognosis; whereas an anxious personality has the opposite effect. Secondly it is to be remembered that the series deals with immediate results in cases given E.C.T. soon after examination, by which time no psychotherapy beyond a word or two of encouragement had been given. It is quite clear that there is a nucleus of cases clearing up without psychotherapy, and the statement sometimes made that every case requires psychotherapy is therefore untrue. I do not believe that in practice every case receives it. It is, of course, quite otherwise with the "improved" cases which would normally receive psychotherapy and many of whom would be shown as cured were I not dealing solely with immediate results. Lastly, the series demonstrates how false it is to believe that reactive depression is invariably to be equated with psychotherapy; and endogenous depression with E.C.T. Many reactive depressions respond well to E.C.T. if severe, and many more are made so much better that psychotherapy has more chance of success than it would have had without it. Equally some manic depressives are eminently manageable by psychotherapy.

In out-patient treatment it is important to have E.C.T. readily available on any weekday within reasonable hours, so that patients may be dealt with immediately. If this is arranged, and if the treatment is given thrice weekly, my own tendency is to take a reasonable amount of risk from the point of view of suicide, if the effect is to obviate the need for mental hospital treatment. At Westminster Hospital we have found no difficulties in using intravenous sodium amytal for apprehensive patients; and we have not hesitated, with the collaboration

of our anæsthetist colleagues, to use C.10 where it has been necessary. When apprehension and agitation are marked, depersonalized states sometimes follow E.C.T. and I am sure this is quite compatible with a correct diagnosis of primary depression. We have found the technique described by Fabing to be very successful in these cases as far as our experience has gone. This technique involves the rapid intravenous injection of 5 c.c. of Coramine about 30 seconds before a major fit is given. The use of oxygen to cut down the anoxic period and the careful avoidance of minor seizures during treatment are also important factors in smooth out-patient therapy.

There is one symptom that should be stressed as indicating the need for in-patient treatment, quite apart from the accepted symptoms with which a bad prognosis is associated. That symptom is loss of weight of fairly marked degree, and in cases of this kind we have found that E.C.T. usually fails and that it is better to admit the patient and give modified insulin first.

I should like to acknowledge the assistance given to me in this study by Dr. E. de C. Kite, Senior Registrar to the Psychiatric Department of Westminster Hospital.

[*May* 8, 1951]

Psychosomatic Medicine and Psychotherapy

By ERNST KRETSCHMER, M.D.

Professor of Neurology and Psychiatry in the University of Tübingen

[English Version by E. B. STRAUSS, D.M., F.R.C.P.]

WHEN we come to consider psychosomatic problems in the concrete, we soon discover that it is impossible to describe the influence of the mind on bodily functions as though we were dealing with separate categories. We are dealing rather with cycles or sequences: affects, for example, give rise to autonomic and endocrine reactions, such as the increased secretion of adrenaline resulting from fear; or, again, anxious anticipation may give rise to spastic colon or colic. This increase of somatic activity has a boomerang effect on the affective state, giving rise to emotionally over-determined imagery and behaviour-patterns. We thus see that chain-reactions are set in motion, so that it ultimately becomes extremely difficult to determine what is cause and what is effect.

Similarly, when we make use of the concept of "complexes", in thinking of a given problem in terms of psychopathology, we must realize that these complexes do not exist in isolation or in their own right, as it were. Whether an experience, or situation in the outside world, gives rise to complex-formation depends just as much on the soil as on the seed. In considering the "soil", we have to take into account not only constitutionally determined dispositions but the psychic tonus at the time of the experience. For example, a person even in a quite slightly depressed mood may develop a severe complex in response to an experience which would leave a person in an hypomanic frame of mind unscathed. Psychotherapy teaches us that it is possible to lessen a patient's vulnerability in the matter of complex-formation by reducing his general psychosomatic tension. It is, therefore, important for psychotherapists to take the total psychosomatic situation into account instead of concentrating exclusively on the psychic moiety.

The most important and most recognizable psychosomatic reactions are transmitted by way of *radiation* to the autonomic-endocrine systems and thence to the various viscera which come under their direct influence, and finally to the whole organism.

These facts can be experimentally demonstrated by the so-called psycho-galvanic reflex of Veraguth. In the past, we frequently made use of this technique to establish the differences of response to psychosomatic stimulation of the various constitutional types. There are persons of a certain make-up who exhibit strongly positive psycho-galvanic reactions of as long as a quarter of an hour's duration when they are comfortably at rest in the laboratory but tensely expecting something to happen.

If one compares these trivial psychic stimuli with those impinging on the organism in the course of everyday life, which are infinitely more intensive, we can begin to understand the importance of this continuous radiation of affective tensions and oscillations both in health and disease. The whole organism, then, can be likened to the belly of a violin which resonates sympathetically with the vibration of one of its strings, at one moment strongly and at another feebly.

One cannot escape the conclusion that the internal organs are continuously subjected to this kind of influence; and this makes it imperative for the clinician and the physiologist to review the whole position. Up till recently it has been customary to classify diseases under the two headings "psychogenic" and "organic", and to suppose that there was a sharp division between them. In reality, however, even at the psychiatric level, it is impossible to gain a proper understanding of psychogenic disorders without taking their somatic correlations into account. Even Freud wrote about "somatic compliance" ("körperliches Entgegenkommen"); and, in my various writings, I have carefully analysed the special mechanisms by which the psychosomatic transformations are effected. The converse is also true: psychic factors contribute causally to so-called organic illnesses. The experimental facts of the psycho-galvanic reflex, already mentioned, make it extremely unlikely that the effect of these continuous psychoreactive vibrations and resonances on the organs regulated by the autonomic nervous system is to bring about a disturbance of *function* only; one can only suppose that they may finally lead to an alteration in *structure* as well, in a highly sensitive subject. It is noteworthy that the various constitutional types, in accordance with their particular patterns of response to stimulation, exhibit a tendency to special ways of going off the rails; e.g. one type may develop hypertension, another peptic ulcer or spastic colon.