cheek, and side of the nose. An attempt was made to reinject the great auricular nerve. This, however, proved difficult owing to the local fibrosis, and, while the upper extent of the pain was somewhat diminished, it still persisted in the lower part of the affected area. The great auricular nerve was therefore exposed as it lay on the sternomastoid muscle, and two branches, an anterior and a posterior, were identified. On touching the latter with the forceps no pain was experienced. The posterior branch of the nerve was evidently still interrupted by the previous alcohol injection. When the anterior branch was touched, however, it produced typical pain over the cheek and upper lip of great intensity and identical with that occurring spontaneously. The removal of 1½ in. (3.8 cm.) of both branches was followed by complete abolition of the painful tic and by slight analgesia of the lobe of the ear and the region of the parotid. The patient has had no recurrence of pain over the last 18 months.

Discussion

I have now treated some 56 cases of tic douloureux either by alcohol block or by surgical section of the great auricular nerve. In all cases alcohol block was attempted first, and in about half was completely successful in relieving the pain, provided the tongue was not involved. However, in the other cases only partial or transient relief was obtained, and surgical section was carried out later. The treatment does not relieve the pain in the tongue. The patients have now been followed up for as long as five years. In cases treated by alcohol block alone the pain may return after 6 to 18 months and reinjection or surgical section has to be carried out. Of the 25 cases in which surgical section was undertaken, two have had some return of pain after intervals of two and a half and three and a half years, respectively.

From the above observations it seems impossible to escape the conclusion that, at least in a proportion of cases, tic douloureux is a disturbance of the great auricular nerve and other branches of the cervical plexus. It seems possible that the pain in the face is mediated through the fibres of the great auricular nerve, and that in the tongue through the fibres of the cervical plexus which join the hypoglossal nerve. Whether this is the basis of symptoms in all cases remains to be seen. If so, then how is it that interruption of the trigeminal nerve may give relief from the pain? It may be that this causes a local atrophy of the nerve networks in the skin and tongue mucosa, which also receive fibres from the great auricular nerve.

Summary

Reasons are adduced for believing that, at least in a proportion of cases, tic douloureux is due to a disturbance of the branches of the cervical plexus, especially of the great auricular nerve and the branch which joins the hypoglossal nerve.

A method is described for alcohol block and surgical section of the great auricular nerve, which has been used in the treatment of tic douloureux involving the face.

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IN-PATIENT CARE OF GENERAL HOSPITAL PSYCHIATRIC PATIENTS*

EXPERIENCE WITH 500 CASES

BY

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In the accompanying table is given an analysis of 500 consecutive patients seen personally for diagnosis and treatment in the Department of Psychiatry at Leeds University. Apart from the psychosomatic group, which it is proposed to discuss separately, there is little on which to comment in these figures. They have, of course, no universal significance, as they depend on the referring doctors. They merely give an impression of the kind of psychological problem dealt with in one particular setting.

The Patients According to Diagnostic Groups

Psychoneurosis	47(10)	170(21)
Hysteria	5(2)	
Obsessional-compulsive state	118(9)	
Anxiety state		
Depression (mania, 4)		92(12)
Dull and backward		11(1)
Mentally deficient		8
Epilepsy		10(4)
Addiction (chronic alcoholism, 3; ether, 1; thyroid, 1)		5(1)
Cerebral organic states		42(3)
Toxic—exhaustive states 4	Hypertensive deficit 2	
Cerebral tumour .. 7	Parkinsonism .. 1	
Head injury .. 7	G.P.I. .. 2	
Arteriosclerosis .. 6	Cerebral syphilitic 1	
Senile degeneration 3	Paget's disease .. 1	
Pre-senile states .. 1	Myoclonus .. 2	
Bromide intoxication 1	Unknown lesions 3	
Delirium tremens .. 1		
Paranoia		3
Schizophrenia (including paraphrenia)		13(2)
Psychopathic personality (including sexual deviation)		43(5)
Psychosomatic conditions (other than psychoneurotic)		79(7)
No psychiatric abnormality found		24(1)

Fifty-seven of these patients (the diagnoses are given in parentheses in the above table) were admitted to psychiatric beds in the General Infirmary at Leeds, being dealt with among general medical patients in the ordinary wards, under conditions no different from those applying to any other type of illness. The following are reasons for admission: (1) For physical examination and investigation. (2) For psychiatric observation, or more detailed psychological examination than was possible as an out-patient. (3) For specific treatment, such as E.C.T., abreaction, stabilization of analeptic therapy, and so forth. (4) To give relief from an acutely dangerous or unfavourable environment. (5) To assist in establishing a psychotherapeutic role on the part of the physician. (6) To allow of continuity of treatment when a patient had been investigated in a medical or surgical bed and it was not possible to keep him there as long as would be desirable for his further psychiatric investigation or treatment. (7) For convenience, because attending from a considerable distance and more than one interview was required.

Admission for Physical Investigation

This is usually a straightforward issue when a patient presents with a symptom which may be connected with a disorder of mechanism. There are a number of subjective complaints which are particularly apt to be misunderstood: common examples include tiredness in anaemia; shoulder

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pain in relation to cervical slipped disk; fatigue in hypertension; pain in a young patient with atypical or doubtful coronary thrombosis; and tachycardia in minimal hyperthyroidism. In many cases investigation may best take place in a routine way elsewhere in the hospital. But admission to a psychiatric bed often carries intangible advantages: initial rapport is maintained, for example, or the psychological perspective is not confused; and sometimes the psychiatrist can conduct the physical investigation quite adequately without further help. General physicians are apt to underestimate the capacity of their patients to follow and understand physical problems under investigation. It is easier to play a reassuring omniscient part than to acknowledge uncertainty about some physical disorder. At any given moment in a psychotherapeutic relationship there is a limit to the amount of information the patient should be given; but, equally, there is a limit to the appropriate medical reserve.

Psychotherapeutic rapport with an intelligent patient quite often requires, or is strengthened by, an admission of fallibility or explicable uncertainty. With minor hypochondriasis a useful technique has been to reassure the patient, explaining the limits of physical examination and investigation, and then to suggest review at some definite and appropriate point ahead, say in three, six, or nine months' time. This clears the air for further psychotherapeutic discussion, and reinvestigation often proves unnecessary.

It is a truism that the psychiatrist should carry out a full physical examination; or should make sure that a patient is, or has been, thoroughly examined physically elsewhere. Further, there is a proper time for this, usually before any formal therapeutic moves; and to conduct a thorough physical examination is part of the routine by which the psychiatrist gives confidence both to himself and to the patient. But at times there seems to be some quality in the psychiatric relationship which militates against intensive physical investigation and treatment, as distinct from a limited physical examination. The difference between the psychiatrist and the general physician seems to be something of this sort—that the psychiatrist is trained to be passive, and permissive; to allow patients to express themselves in their symptoms, or their behaviour; and, in fact, to be tolerant of disability, and, by a special attitude and by special techniques of discussion, to establish a relationship which will help in giving the patient confidence and insight. This applies even with the use of active physical treatment: the permissive, passive, tolerant approach remains a basic part of psychiatric technique.

In modern physical medicine and surgery, on the other hand, the doctor is trained, unavoidably, in a probing, searching, critical attitude, almost aggressive at times in its intensity, with a willingness to intervene in an objective way quite independently of the patient's understanding of the situation. It may be that there is an inevitable conflict here, and that to combine the qualities required for first-class psychiatric care with those demanded by modern physical methods of investigation is an almost impossible achievement, attainable only by a degree of dissociation—a kind of Jekyll and Hyde situation, where who is which will depend on one's brand of clinical practice.

If so it should be a greater stimulus than ever towards bringing the general physician and the psychiatrist into a group relationship. Team work among surgeons is taken for granted. Given mutual experience and understanding of group dynamics, it should be possible for combined physical and psychiatric treatment to be conducted by team-work, rather than through the traditional techniques of individual responsibility. This would require something closer and more purposeful than the loose co-operation which is normally taken for granted in the wards.

Admission for Observation

Usually the evidence about a patient's behaviour comes from three sources: the information from the patient him-

self, observation during interview, and information from relatives. Sometimes, however, there is a straightforward difficulty in that out-patient interviews may simply not give an opportunity to see enough of the patient. As an example, the following case may be quoted.

An Irish labourer aged 21 was referred to the medical out-patient department because of his bizarre complaints. His accent was so thick that at first we thought he was Polish. It took some time to establish rapport sufficient to elicit his complaints fully. They included attacks of what he called "shivering out"—a phrase which he used as if the doctor must at once know what he meant, and which referred to shivering all over the body lasting a minute or so, and developing at the end of micturition, mostly in the evening. At a later interview he revealed the idea that there was something inside him in the pubic region which was very slowly eating him away. In spite of the odd picture, very much like schizophrenia, there was a reasonably good affective relationship, and the background was satisfactory. He was living in a hostel, and shared interests (cards, dog-racing, and cinema) in a satisfactory way with others, although there was evidence of immaturity, with some odd personality traits. No hallucinations or formal delusions other than his half-understood hypochondriacal one could be found. He was admitted to the ward, his physical state was investigated (with negative results), and his relationship with nurses, occupational therapists, and other patients was observed. His level of intelligence was confirmed as average, and, with increasing response, the emotional problems relating to his simple upbringing in Ireland and his transition to the rather stressful industrial environment of Manchester and Leeds were discussed with him. He then was able to reconsider the unrealistic nature of his ideas about his body. Observation in this case was of great assistance in avoiding premature conclusions which might have had serious results for his freedom of action.

The psychiatric patient should not be left to a routine based on chance administrative arrangements and clinical tradition in other branches of medicine. This is a natural tendency, since all concerned—psychiatrists, nursing staff, and administrators—have been unaccustomed to thinking of patients with emotional illness as a definite group within the general hospital. The psychiatrist, however, can utilize his mental hospital experience, because in this area mental hospital and general medical practice find common ground. When a patient is admitted to a mental hospital he has been, in one sense, introduced to a special kind of group therapy. He passes through various stages of adjustment. After the experience of admission, whether voluntary or compulsory, there comes the process of establishing relationships in one particular ward or unit of the hospital. As time goes on, no matter what specific forms of treatment are administered, he becomes increasingly aware of the therapeutic status of the different wards and treatment groups, and passes from one to the other, making small serial adjustments to the reality of each new environment, until finally he is in that hospital group which is living virtually a normal life, and from which he returns home.

There is a therapeutic advantage in arranging a similar process in the general hospital. It must naturally vary according to personal experience and local circumstances. The system evolved in dealing with the patients quoted here has been along the following lines.

(a) *Phase of Admission.*—Preparation of the patient, with explanation and discussion of the purpose behind admission. If resistance is pronounced it may be wise to postpone admission.

(b) *Initial Rest in Bed.*—Physical examination and investigation. At the end of this stage, which may be very short or quite prolonged, appropriate psychotherapeutic discussion of physical findings is advisable.

(c) *Patient up and About Within the Ward, in a Dressing-gown.*—Occupational therapy has started meanwhile in bed, and the patient, in dressing-gown and slippers, begins now to attend the out-patient department, which in this hospital is on an upper floor. In some cases visiting from outside will have been limited up till now; in others encouraged.

(d) *The Patient's Clothes are Brought.*—From now on, therapeutic interviews are held away from the ward, in the psychiatric department, which requires the patient to cross a public street. This provides a natural reason for his being required to dress.

(e) Sooner or later the patient is encouraged to stay out of hospital for a short walk or for a cup of coffee, before returning to the ward. On visiting days relatives may take the patient out instead of sitting at the bedside. At all times, however, the patient's movements are subject to the ward sister's agreement, and are expected to fit in with the ward arrangements.

(f) Finally, the patient leaves hospital for a spell at an ordinary convalescent home, away from specific psychiatric supervision.

Admission for Specific Treatment

With care and flexibility, practically all the therapeutic psychiatric methods such as psychotherapy, hypnosis, narco-analysis, E.C.T., abreaction, and modified insulin or other drug therapies can be fitted in conveniently to a basic regime of this kind, which gives a sense of progress while allowing for the maintenance of the all-important permissive relationship throughout. Suitability of patients, however, does vary to some extent with hospital facilities. Powers of co-operation by hospital staff have to be carefully assessed. Emotionally disturbed patients tend to act out their feelings with other patients as well as the nursing staff, and the psychiatrist carries the responsibility of judging the resilience and tolerance of these other environmental figures in the group situation, so that discretion demands sometimes that the patient should not stay. Hysterical and psychopathic patients are the chief cause of trouble. Some day further specific training of the general hospital nurse in psychotherapeutic methods may be helpful in this kind of situation. It is striking, however, that at present, almost without exception, sisters and senior nurses show considerable intuitive understanding of difficult patients. Even with the most aggressive or hostile patient it is practically always the young and inexperienced nurse who makes serious errors.

Many authors have discussed the value of E.C.T. for in-patients (Sargant and Slater, 1946; Sands, 1946; Mallinson, 1948), but one is inclined to agree with Neustatter (1951) that E.C.T. in psychoneurotic and psychosomatic patients has surprisingly little place. Many depressed patients of the reactive type, admitted for E.C.T., start improving while initial x-ray and other investigations are being done; and very soon it may become contraindicated, as being likely to slow up adjustment rather than hasten it. On the other hand, the early psychotic patient does not show this beneficial reaction to admission on the whole, and E.C.T. in such a case follows in due course. A development which deserves mention in this connexion is the use of short-acting relaxants in association with E.C.T., which now permits of the whole procedure being carried out behind screens in the general ward, without distress to others.

Escape from Environmental Stress

There are two main occasions when environmental stress justifies admission. One is when the patient is displaying symptoms which are a direct reaction to stress, or are manifestly made worse by an unsatisfactory emotional set-up at home. In asthma, for example, symptomatic relief may show almost at once on admission, and patients are sometimes found who over many years had invariably been well in hospital and seriously ill at home. For such, admission to a general hospital may be inappropriate, and a long-stay neurosis centre perhaps may provide a better answer (where such a centre exists). But there are many less-well-defined syndromes in which physical manifestations fluctuate with emotional strain. Although these are to some extent physiological, and although the temporal relationship may at times obscure rather than point the connexion, as when

migraine develops after and not during a period of emotional tension, admission alone may be a valuable therapeutic step.

A special case is the patient who turns up as a casualty, sometimes brought in by the police. The history is often confused, incomplete, and contradictory, and the patient may be emotionally cathartic, weeping, and struggling; or stuporous and uncooperative. A psychopathic personality is sometimes recognized only too readily; but the wear and tear of dealing with such a patient at short notice, possibly requiring literally hours of attention in the middle of some complicated programme, is greatly eased by the facility of admission. Social dynamics begin to work, and with the invaluable aid of a psychiatric social worker the whole objective picture may become plain within two or three days. One can then turn to the problems of treatment. Once such a patient knows his way to the casualty department, he tends to return from time to time, but his background is then understood, and further admissions may not be necessary.

The other prominent justification for admission to escape from environmental influences is when the latter are obscuring diagnosis or prognosis. Particularly in patients with reactive depression, a psychoneurotic pattern may become quickly apparent as soon as gross environmental strain is relieved, with a corresponding change in prognosis.

Establishing Psychotherapeutic Rapport; Transfer from Other Beds; Admission from a Distance

The value of admitting a patient for psychotherapy alone is very doubtful, chiefly because to adapt to an environmental problem he should be in day-to-day touch with his difficulties. Even where there is some other reason for admission, such as a bodily illness quite separate from his psychological condition, psychotherapy often proves ineffective. There are only two occasions which occur at all frequently when in-patient psychotherapy in the general hospital may be helpful in its own right: first, when the patient is transferred from the care of a physician or surgeon elsewhere in the hospital; and, secondly, when the distance from home to hospital limits out-patient attendance severely.

The second of these is a straightforward problem of convenience, but the first may be clinically useful. Practically all psychosomatic patients, and many psychoneurotics, pass through the hands of the physician or surgeon in the first place. Often, therefore, the psychiatrist is asked to see such a patient in hospital as part of the general investigation, or at the end of it, when physical findings are complete. No matter how well conducted their investigation, these patients do often have many doubts about themselves and their complaints. To be able to transfer them to a psychiatric bed, and establish the psychotherapeutic relationship before discharge, may then be most useful. The physical investigation can be made to take its natural place, whereas it may otherwise remain at times seriously misunderstood. This, of course, should not happen when a psychosomatic approach has been applied, whether intuitively or as a result of training.

Integration of Mental Hospital and General Hospital Psychiatry

The 500 patients referred to here represent the kind of material found in every general hospital. It does not seem to be known how many psychiatric beds are provided for such patients, but one has the impression that they are too few. In a combined memorandum of the Royal College of Physicians of London, the British Medical Association, and the Royal Medico-Psychological Association in 1945 it was concluded that 5% of beds should be available in those general hospitals where a psychiatric out-patient clinic is held regularly. Blacker (1946) suggested, for a start, the provision of 100 beds outside mental hospitals per million of the population, apart from observation ward accommo-

dation. It was part of his concept that all grades of mental hospital staff should be offered part-time appointments, thus encouraging diverse extramural activities, and that general hospitals and mental hospitals should have staff in common.

Although many general hospital patients may never enter a mental hospital there is certainly no natural clinical cleavage between those who do and those who do not. Experience underlines similarities rather than the opposite, especially in techniques of management. If, then, one envisages a policy of treating as many psychiatric patients as possible in the general hospital, how is it best achieved? Henderson and Gillespie (1950) thought that treatment in the wards of a general hospital should be regarded as a provisional arrangement pending the establishment of specially constructed and equipped psychiatric clinics within general hospitals. Apart from observation wards, whose special function excludes them, the York Clinic stands out in this country as almost the only deliberate attempt at achieving such an aim, with close physical contiguity to other parts of the hospital. Such a unit is essentially what most mental hospitals try to supply in the form of admission wards. But can anything else be attempted? In an address to the Association of Occupational Therapists Lord Webb-Johnson (1951) is reported to have said that one of his own great ambitions was to see all voluntary patients, and all borderline patients, treated in a general hospital. This would be a revolution indeed, and if widely developed it would inevitably mean bringing the present staffs of mental hospitals to work with in-patients in the general hospitals also. Sargent and Slater (1946) are among those who have suggested its clinical practicability. It would also be in line with the ideals of the joint memorandum already quoted.

But is this not really a question which should be explored in a purposeful, experimental way, to supplement evidence which is at present tenuous? For example, would it not be possible to arrange a clear-cut long-term experiment, within the ordinary administrative arrangements of a progressive general hospital, by which beds therein could become the part-time responsibility of a mental hospital consultant, assisted by his staff, and admission to which would be only by transfer from the mental hospital? The mental hospital consultant would, in effect, be given general-hospital facilities for the experiment. We have to discover the answers to two main questions: first, how many patients can be treated successfully in the general hospital who are at present treated successfully in the mental hospital? and, secondly, what special administrative arrangements and regimes would be necessary for this? One has in mind the serial group relationships mentioned earlier, as well as such matters as provision of day-rooms, problems of staffing, and the use of convalescent homes for prolonged rehabilitation. The answers to these two questions cannot safely be assumed, and their investigation could play a powerful part in encouraging further integration of psychological and physical medicine.

I am glad to acknowledge Professor D. R. MacCalman's permission and encouragement in dealing with, and describing, these patients.

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SEROLOGICAL FINDINGS IN A CASE OF HAEMOLYTIC ANAEMIA

WITH SOME GENERAL OBSERVATIONS ON THE PATHOGENESIS OF THIS SYNDROME

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The application of new serological methods has made a further classification of the syndrome "haemolytic anaemia" easier. Whereas up to a short time ago a classification into "familial" and "acquired" types (excluding acquired haemolytic anaemia due to known aetiological agents) was possible only by clinical means and family investigations, the discovery that one type of acquired haemolytic anaemia is accompanied by the presence of antibodies in the blood of the patient made it possible to separate this type from the rest.

Antibodies had been postulated already in 1940 by Dameshek and Schwartz as the causative agents of all haemolytic anaemias. Definite proof, however, of their presence in certain types of haemolytic anaemia was obtained only in 1946, when Boorman, Dodd, and Loutit used the Coombs test (anti-human globulin test) for the investigation of their cases. They found that the cells of certain patients suffering from the acute and obviously acquired type of the disease gave a positive Coombs reaction, and interpreted these findings as proof of the presence of antibody globulin on the surface of the cells of these patients. They also reported that the sera of their patients who were found to have a positive Coombs reaction gave no indication of containing an antibody other than a low-titred "cold" agglutinin or "pseudo"-agglutinin. Since then, however, a number of cases have been described in which the presence of antibodies in the serum of the patient could be demonstrated by means of the indirect Coombs test. These antibodies were designated pan-agglutinins, since they acted upon all red cells tested, and on occasion, in consequence, no donor compatible with the patient could be found. Kidd (1949) eluted the antibodies from the red-blood cells of his patients and found them to act on all cells of his panel. He states that "to date, no human red cell has been found which cannot be fully coated or sensitized by exposure to the action of these eluates."

In our experience, previous cases of acquired haemolytic anaemias in which the direct Coombs test was positive had shown similar behaviour, and, though the strength of the reaction varied, eluates from previous cases showed the same lack of specificity as the eluates prepared by Kidd (unpublished observation).

The serological findings in the case described below are remarkable in that the antibody both in the serum

At the annual general meeting of the Royal Institute of Public Health and Hygiene, held in London on July 2, Mr. Walter Elliot, C.H., F.R.S., presented certificates of Honorary Fellowship to Mr. F. J. M. Bengué, founder of the Bengué Memorial Award, and to Mr. H. H. Gerrans, Secretary of the Institute.