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ACCIDENT NEUROSIS*

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LECTURE I

At a time when fever hospitals are being closed and accident hospitals planned or opened, the fact that several recent lectures in this series have been devoted to various aspects of accidental trauma would not have disconcerted Dr. Gavin Milroy. His "suggestions" to lecturers of 80 years ago reveal an urgent preoccupation with what was topical in State medicine, and he could not but be impressed to-day that two short decades have witnessed the virtual displacement of the contagious fevers by trauma as a major epidemic scourge of our civilization. Each year more than a million people in Great Britain are injured at work or on the roads. Figures of such magnitude pose major problems of organization to the Health Service, but the functional nervous disorders which sometimes follow accidents have an additional importance to State medicine, since it has been widely argued that their very occurrence is in some way related to the machinery that society has evolved to deal with them.

The literature of accident neurosis is scanty, and it has received little attention from formal psychiatrists. Most papers on the subject are in the nature of occasional contributions, often more conspicuous as expressions of opinion than for their factual content. Indeed, the subject is so fraught with prejudice that it demands a conscious effort to maintain a clear distinction between fact and interpretation. This I will endeavour to do, and my material will fall into two parts—first, the presentation of clinical data derived from personal experience, and, secondly, a discussion of its possible medical and social significance.

The question of terminology is a vexed one, and the inelegant prefix of the title has been adopted reluctantly but advisedly. The term "traumatic neurosis" was coined by Oppenheim (1889), who attributed the condition to neuronal damage of a molecular nature. Whatever validity such a concept may have to the problem of cerebral concussion, it is clearly irrelevant in the present context: accident neurosis may arise quite independently of physical injury of any kind. Furthermore, the subsequent extension of Oppenheim's term to cover the results of so-called "psychic trauma" as well as physical injury has so far deprived it of any clear meaning that it is best discarded. The terms "compensation neurosis" or "litigation neurosis" have the virtue that litigation is a more constant feature of these cases than physical injury, but they prejudice the issue of aetiology.

The evidence presented here is based on personal experience of about 4,000 patients examined for medico-legal assessment after accidents during a dozen years of consultant practice. It includes an analysis of 200 cases of head injury recently examined for this purpose, and a follow-up study of 50 patients in whom gross neurotic symptoms after an accident had been found on examination more than three years previously.

Neurosis and Head Injury

The material under review in this connexion comprises 200 consecutive cases (152 male and 48 female) of head injury first referred for medico-legal examination between 1955 and 1957. The ages of these patients ranged from 2 to 84 years: 90%, however, were between 20 and 60, the average age being 42. All social strata were represented, from unskilled labourers to the peerage. The average interval between injury and first examination was 14 months. Ninety-four injuries were sustained in road and 106 in industrial accidents. The "industrial" group included a few patients injured in the course of non-industrial occupations. Of these 200 cases, 47 had gross and unequivocally psychoneurotic complaints.

In 22 other cases a post-concussional or post-contusional syndrome was complicated by psychoneurotic features. In nine further patients a true depressive syndrome of "endogenous" pattern succeeded the injury; and in one instance traumatic delirium following severe brain injury merged imperceptibly into a schizophrenic illness, in a man whose elder brother was already an established schizophrenic. In 34 other cases organic impairment of personality or intellect was encountered: all except three of these patients had suffered prolonged unconsciousness extending over periods varying from several days to many months. The three exceptions comprised an arteriopathy of 66 in whom gross dementia followed a closed head injury characterized by only 15 minutes' unconsciousness; and two cases in which severe fractures of the skull had been unassociated with any impairment of consciousness.

Differential Incidence of Neurosis

Our main concern here is with the 47 cases with indubitably psychoneurotic complaints. Such a development was twice as common after industrial (33%) as after road accidents (16%). It was more than twice as common in men (27%) as in women (12.5%). This difference might at first sight be regarded as partly related to the preponderance of road accidents amongst the female cases. It is true that only six of these

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resulted from occupational injuries, among which were two cases of gross psychoneurosis. On the other hand, 42 traffic accidents in women yielded only four instances of neurosis, whereas 12 were encountered amongst the 52 men similarly involved.

It is a widespread clinical impression that accident neurosis is commoner in older subjects, but no evidence is forthcoming from this material which favours the view that age is of much importance in relation to the syndrome—except that it was not encountered in childhood. Almost exactly half of these patients were over 40. Among these the incidence of neurosis was 24%, as against 21% in the younger group.

Relationship to Severity of Injury

In whatever way the cases are broken down they demonstrate an inverse relationship of accident neurosis to the severity of the injury. Gross psychoneurosis occurred, for example, in 31% of patients without radiological evidence of skull fracture, in 9% of patients with simple fracture, and in only 2 out of 25 patients who suffered compound fractures of the skull. In one of these a gross hysterical reaction complicated organic deterioration of personality and intellect following a severe brain injury, and the other patient was already a lifelong hypochondriac. A similarly inverse relationship is shown between the incidence of gross psychoneurosis and the duration of unconsciousness. The incidence of psychoneurosis in patients who were never unconscious was 42%. Amongst all unconscious patients the incidence was 14%. Where the post-traumatic amnesia (P.T.A.) was less than 15 minutes the incidence was 37%, and where it was more than this it was 10%. Of 48 patients with P.T.A. of more than 72 hours, only three showed residual psychoneurosis. One was a mental defective, one the lifelong hypochondriac already mentioned, and one a patient with a long history of recurrent psychiatric disability before his accident.

Predisposing Factors

The incidence of accident neurosis is related to social status. In the industrial group most of those who developed gross neurotic sequelae were unskilled or semi-skilled workers. Cases from this social group showed an incidence of neurosis of twice the average (47%). Amongst men, labourers, datal mineworkers, and the like furnished the bulk of cases. Amongst women, factory and office cleaners were conspicuous. More than half of the patients with accident neurosis came from the Registrar-General's social classes IV and V (semi-skilled and unskilled workers), as against a 38% representation of these social classes in the 200 cases reviewed, and 34% in the population of Northumberland and Durham as a whole. Among patients above the level of under-foreman or charge-hand, neurotic symptoms or prolonged incapacity subsequent to industrial head injury occurred in only 18% of cases.

The factor of social differential may also be related to the lower incidence of neurosis after road accidents, which cover a wider social range than the industrial group. Even here, however, a disproportionate number of cases occurred in those of lower social status, and the condition was distinctly rare among the professional or managerial patients examined. However, amongst the latter, one intelligent businessman and one professional man frankly admitted to making the most of their symptoms in the hope of turning minor injury to financial advantage.

It has often been suggested that the nature of the accident is a material factor in influencing the subsequent development of neurosis. Some of the accidents in which the patients under discussion were involved were of the most alarming nature, but out of 17 such outstanding instances neurosis developed in only two, and indeed many of the most disabling functional sequelae followed trivial blows to the head sustained during the course of some routine occupation quite devoid of special danger. However, the nature of the employment is possibly of some importance. The condition appeared to be more frequent in the employees of large industrial organizations or nationalized industries than in those working in the more intimate *milieu* of small businesses or on farms. The series is not a large one, and allowance must be made for local factors. However, it would appear that underground mineworkers and steel erectors, especially in the labouring grades, furnished a higher-than-average proportion of cases: such work is of course dangerous, and widely known to be dangerous, while claims for compensation are an everyday matter in the industries concerned.

In relation to personal predisposition, it has been stressed in psychiatric circles that accident neurosis tends to occur especially in patients with a particular type of personality—dependent, insecure, craving sympathy, and at the same time exhibiting well-marked paranoid tendencies. This may be the case, and such features are indeed often conspicuous by the time the patient is seen with the developed syndrome. However, in view of the absence of any valid parameter of personality, and of the fact that assessment of the patient prior to his accident is both subjective and retrospective, it can hardly be regarded as more than a clinical impression. Indeed, in response to direct questions few of these patients are prepared to admit to anything other than robust physical and mental health until the very day of the accident, while the collateral evidence of relatives and friends—so valuable in other psychiatric contexts—is often equally unreliable. Assessment of pre-accident personality therefore presents special difficulties, and depends to a greater degree than is usual on information from uncommitted sources such as the family doctor, and on the objective evidence of work and sickness records. Quotation of these often jogs the patient's memory for important events which—whether consciously or unwittingly—he had omitted from the most painstakingly elicited history.

With these qualifications, evidence of some significant predisposing factor or factors was found in 20 of these 47 cases in which gross neurosis had followed head injury. Because of the frequent tendency of these patients to conceal positive evidence in their pre-accident histories this figure is more likely to be an underestimate than an overestimate. However, the development of a major psychoneurosis of disabling severity in adult life (barring either a background of organic brain disease or camouflaged psychosis, or else a truly catastrophic emotional situation) usually implies a degree of predisposition hard to disguise even in the most cursory psychiatric history. The absence of any evidence whatever of predisposition to neurosis in more than half of these psychiatrically disabled patients is therefore a very striking feature.

Amongst the predisposing factors encountered in certain cases was below-average intelligence. In these

cases, however, emotional stability was more significant: several stable dullards showed no neurotic developments after their head injuries. A past history of evident emotional instability, invalidism, hypochondriasis, or prolonged incapacity after previous minor injuries was an unfavourable feature, as was a shiftless work record. Concurrent menopausal nervous symptoms, coincident hypertension, and arteriosclerosis were occasional factors. Responsibility for the patient's prolonged absence from work was often laid firmly at the door of the doctor—"he won't let me go back"—but in fact convincing evidence of primary iatrogenesis was rare.

Occupational Disability

The average duration of absence from work in 31 patients with neurosis who had returned to their employment when they were seen was six months. This figure must be considered in relation to the severity of the head injuries involved. Only 4 of these 31 patients had sustained fractures of the skull. Sixteen never lost consciousness, and in nine further cases the P.T.A. was measured in minutes; only six patients had been unconscious for an hour or more. This compares with an average period of four months' loss of work in 58 patients who had sustained simple fractures of the skull uncomplicated by neurosis. Forty-six of these patients had been unconscious, 23 for more than five days and only nine for less than an hour.

The average of six months' occupational disability with neurosis may be compared also with that in patients who had sustained compound fractures of the skull. Of 22 such cases, five were permanently disabled by epilepsy, hemiplegia, or organic mental change; and two others were away from work for two and a half and four years respectively on this last account. In the remaining 15 cases, however, the average period of absence from work after compound fracture of the skull was a little less than 4.5 months. These encouraging figures for early return to work after severe head injury are very similar to those given by Ritchie Russell (1934) in a survey of consecutive cases drawn from hospital practice. He also convincingly demonstrated the effect of the compensation issue in prolonging incapacity. The present figures demonstrate that, even where this factor is uniformly operative, all but the most severe head injuries cause less occupational disablement than accident neurosis.

Post-concussional Syndrome

In 36 of the 47 cases of gross neurosis described above the symptomatology was that of uncomplicated emotional illness, in which symptoms of organic pattern were entirely lacking. In the remaining 11 cases the actual disability at the time of the examination was predominantly and unequivocally neurotic in nature, but persisting post-concussional symptoms were also present. The consistency of the post-concussional syndrome of headache, postural dizziness, irritability, failure of concentration, and intolerance of noise argues a structural or at the least a pathophysiological basis. However, such symptoms are by no means invariable, even after material closed head injury, and in most uncomplicated cases the subjective disability is not of long duration. Unless the injury has been of some severity it is uncommon for a patient to be away from work for more than a few weeks after concussion sustained in sporting or other neutral circumstances.

In addition to the 11 cases in which gross neurosis complicated post-concussional symptoms, a post-

concussional or post-contusional syndrome was also encountered in 73 other cases of closed head injury in the series, and also in 9 of the 22 patients who had suffered compound fractures of the skull. In none of the nine cases of compound fracture was it complicated by neurosis, but in 22 of the 73 other cases there was an admixture of emotional symptoms, such as sleeplessness, self-pity, depression, or frank anxiety, which were interpreted as indicating a neurotic superstructure. This view was usually also supported by the prolonged duration of the syndrome, its failure to improve, and the frequent claims of deterioration in a symptomatology which we know ordinarily tends to spontaneous improvement, and in which there is every logical reason to expect such a development.

Again, analysis reveals in these cases an inverse relationship between the severity of the injury and the development of neurotic symptoms. Of 49 patients in this series whose post-concussional syndromes followed head injuries associated with unconsciousness of more than five minutes' duration, only three developed persistent neurotic complications, while these were encountered in no fewer than 19 of the 24 patients in whom post-concussional symptoms of similar "physical" pattern followed head injury without loss of consciousness. In the post-concussional group also, neurotic complications were more than three times as common in the absence of skull fracture as in its presence.

These figures indicate that in this series persistence and psychoneurotic elaboration of the post-concussional syndrome bore an inverse relation to the severity of brain injury similar to that observed in the case of frank neurosis. They suggest that in this context at any rate the psychoneurotic component was an expression of whatever situational factors are responsible for accident neurosis in general, and not a function of structural damage.

In other ways also these 22 patients with psychoneurotically complicated post-concussional syndromes were comparable with the 47 examples of neurosis previously presented. By comparison with the 51 instances in which a post-concussional syndrome was uncomplicated by neurosis there was no difference in age incidence (the averages being 42 and 41.5 respectively) and evidence of neurotic predisposition was again found in less than half. Once more also, the neurotic complications showed a higher incidence in the lower social groups.

Depressive Illness Following Head Injury

The nine patients in whom depressive illness followed head injury stand out from the neurotic cases in many ways. In eight the depression was of classical endogenous type and in only one instance did real diagnostic difficulty arise. Seven depressive patients were over 40, the average age being 51. The head injuries were material in all but one instance: one patient had a fractured skull and six had been unconscious. Four patients had a previous history of depressive illness, and three others showed significant predisposing factors in the form of severe hypertension and arteriosclerosis, antecedent menopausal symptoms, and a long history of obsessional neurosis respectively. Two patients were suicidal. Five had been or were subsequently treated with electric convulsion therapy. In each instance improvement followed, even though the compensation issue remained unresolved. These were in fact the only patients in the whole series who exhibited a favourable response of psychiatric symptoms to treatment.

Clinical Features of Accident Neurosis

This syndrome is one of the most stereotyped in medicine. Sometimes the fright of the accident merges imperceptibly into a continuing complaint of nervous symptoms with an anxiety-depressive cast. More often, and especially where the symptoms have a frankly hysterical flavour, the condition develops after a latent period of weeks or even months. The general symptoms are remarkably constant, and amount to head pains (usually described as "terrible," "terrific," or "agonizing"), exertional or postural dizziness, irritability, failure of concentration, and restlessness. Sleeplessness is volunteered in rather less than half, but in reply to leading questions the patient will usually claim insomnia of psychoneurotic pattern (difficulty in getting off to sleep), restless sleep, and often nightmares related to his accident. Where there has been physical injury, complaints of intractable pain or other disability in the injured part are common, and these may be associated with motor weakness easily improved on persuasion, or anatomically incongruous sensory loss.

Objective signs of anxiety such as tachycardia, tremor, and axillary hyperhidrosis are, however, relatively uncommon, and have been found in less than 15% of personal cases. Gross dramatization of symptoms was recorded in more than half. On examination this may be evident in the way the patient shies away from the ophthalmoscope; by the groaning and quivering which ensues when forward spinal flexion is tested; by a flaccid grip easily strengthened by distraction or encouragement; or by the patient's slumping forward with head in hands during the consultation, requesting a glass of water. I had long regarded this last as a pathognomonic sign of accident neurosis, but I understand that it is often seen in women requesting termination of pregnancy on psychiatric grounds.

The behaviour of the patient with accident neurosis at the consultation is characteristic. If he is being examined at the request of the insurance company he frequently arrives late. He is invariably accompanied, often by a member of his family, who does not wait to be invited into the consulting-room, but who resolutely enters with him, and more often than not takes an active part in the consultation, speaking for him, prompting him, and reminding him of symptoms that may for the moment have slipped his memory. The patient's attitude is one of martyred gloom, but he is also very much on the defensive, and exudes hostility, especially at any suggestion that his condition may be improving. It is almost impossible to conjure up a smile to relax his appearance of preoccupied tension. His complaint of amnesia is often at variance with the circumstantial detail which invests his account of the events that led up to the accident many months ago. At some stage he will often insist that the cause of this was absolutely outside his control and that it was entirely due to someone else's fault. The "someone else" is rarely specified, but is usually "they"—in some vague way identified with the employing organization—or the unknown other motorist.

The most consistent clinical feature is the subject's unshakable conviction of unfitness for work, a conviction quite unrelated to overt disability even if his symptomatology is accepted at its face value. At a later stage the patient will declare his fitness for light work, which is often not available. The logic of prescribing light duties rather than his customary employment for

the rehabilitation of the neurotic worker may appear obscure, but the reason why such a recommendation is often made by the general practitioner and echoed in consultant reports is clear: light work is better than no work at all, and it is generally appreciated that unless the doctor goes half-way to meet him—and especially if he provokes actual hostility—the patient's complaints will be intensified and disability further prolonged. The equanimity with which these patients will accept the tedium of months or even years of idleness, apparently unmitigated by any pleasurable diversion, is remarkable.

Another cardinal feature is an absolute refusal to admit any degree of symptomatic improvement. With the exception of a few well-defined conditions such as traumatic arthritis and causalgia, there are no physical results of injury the discomforts of which do not in the course of time become somewhat less intense. Far from accepting the suggestion of such improvement, these patients often make the improbable claim that pain at the site of injury has steadily become more severe over a period of months or years.

Equally characteristic is the patient's attitude to medical attention and treatment. In industrial cases periodic attendance on the general practitioner is necessary in order to obtain successive certificates of unfitness for work, but in other instances it is remarkable that the patient will complain bitterly of disabling nervous symptoms lasting for many months—for which she has never once sought medical treatment. In a number of personal cases the aid of the general practitioner was invoked only after searching questions about such treatment had been asked during a consultation for medico-legal purposes.

The Case History

A case history synthesized from several hundred personally recorded would read somewhat as follows. An unskilled labourer, either with an uneventful previous history or who had perhaps suffered earlier accidents in which minor injury was followed by disproportionately long disablement, sustains a bruise when he trips over a piece of wood carelessly left on the factory floor. Although similar occurrences in his home have never been met with anything more than an expletive, he goes straight to the works ambulance-room, where a dressing is applied and the incident duly recorded in the accident book. The injury is trivial. He completes his shift and possibly puts in two or three further days' work. He discusses the incident with his friends, and consults a union official, who encourages him to formulate a claim "just in case the injury should give trouble at a later date." The union official cannot be blamed for such advice. Official posters exhort the workman to report even trivial accidents at once—and in any case a late claim is always suspect.

The man stays away from work to visit his doctor, who knows his job is heavy and acquiesces in his suggestion of a week's rest. During this week at home he develops headaches, sleeplessness, nervousness, and loss of appetite: he is irritable and easily startled.

It is easy to feel in retrospect that robust handling by the doctor at this stage might have got the man back to work. Sometimes this is true: everyone knows that for one reason or another some doctors abet scroungers, and there are many more who acquiesce in the lay conception that absence from work is in itself a form of

medical treatment. But in this connexion the difficulties should not be minimized: there is often another doctor around the corner who may be more compliant.

At any rate, a process has now been initiated which may lead to months or even years of disablement. Some of this time is spent—unfortunately with tacit professional support—in pointless attendance at the physiotherapy department of a local hospital, where his now normal limb is rubbed, heated, and exposed to coloured lights. Such occupation alternates with aimless wandering about the streets, watching television, and sitting moodily in the house. It is punctuated by lengthy periods in an industrial convalescent home in the country—a residential club where he can compare notes with a handful of fellow sufferers.

Throughout this whole period he sees little of his own doctor and a good deal of solicitors, union officials, and medical consultants to whom he is referred for assessment. From his practitioner he merely accepts certificates of unfitness for work; there is by now a tacit understanding between them that no kind of treatment will influence his symptoms at the present juncture. This view is likely to be confirmed by any psychiatrist to whom the patient is referred, and if the doctor does in fact make some well-intentioned attempt to help him by prescribing a sedative or ataractic the patient will tell subsequent inquirers that these were quite useless, and that he has had “no treatment, only some tablets.” With repeated examinations and interrogations the familiar syndrome gradually assumes its usual florid form. The case involves an allegation of negligence under common law, and is ultimately put down for hearing at the next assize court; but because the civil list is too full—mainly of similar proceedings—or for some other reason, it is adjourned, and ultimately comes to trial months later and several years after the accident. In the interim it is clearly against the man's financial interest to return to any kind of work, or to admit the faintest improvement, while a claim of deterioration can react only to his pecuniary benefit.

Finally the case comes to trial. Even at this stage eleventh-hour settlement after hard bargaining is the likeliest outcome. Once in court the issue of negligence may be unproven and the case may collapse, leaving the man without even the solace of financial benefit. More often, however, it is easy to prove a technical breach of a minor regulation, and an award of some kind is made—perhaps a few hundred or even sometimes a few thousand pounds. In the course of the case the counsel for the employer or the insurance company expresses confidence that once it is settled rapid improvement will occur. Counsel for the man enters the caveat that this is not invariable, and that many such patients suffer persisting disablement long after settlement, and sometimes permanently. Neither they nor their expert witnesses, nor the judge who must assess damages, can give a reliable prognosis or even a valid assessment of statistical probabilities.

It is remarkable that in a country where industrial accidents cause 800,000 new insurance claims and the loss of 16,000,000 working days annually, where there are more than 250,000 road injuries in a similar period, and where three-quarters of all accidental injuries occur under conditions where compensation is potentially payable, no proper inquiry has ever been conducted into the fate of patients with this well-defined syndrome after they leave court. The barrister's interest ceases the

moment judgment is given. The insurance company is licking its wounds and wondering whether it might not have been cheaper to settle—or not to settle. The medical witnesses' interest, already vitiated by the unpredictable dislocation of a busy professional schedule, has evaporated. The only person in a position to know what happens next is the general practitioner—and his part in the case has so far been negligible.

Prognosis of Accident Neurosis

There are several indications that the prognosis of this condition is more favourable than the apparent severity of symptoms at the time of settlement would suggest. The first is that, amongst a number of patients personally seen in this or some other connexion who had previously suffered from and been compensated for a similar condition, not one has ever admitted to any psychiatric disability remaining from the first accident. The second is that, although the syndrome is a very common one in an industrial area, patients with this disorder in whom the legal issue has been resolved are conspicuously rare amongst the thousands who seek treatment for functional nervous disorders. Thirdly, it is significant that of the many ex-Service men who were drawing pensions for the rather similar condition of war neurosis at the end of the second world war, in the vast majority of cases symptoms cleared up within a few years of demobilization. In my experience of these ex-Service cases symptoms persisted only in those heavily predisposed to neurosis; in patients with very inadequate personalities; and in a very small group of patients, apparently previously normal, who had been subjected to prolonged and overwhelming stress, not infrequently occurring in situations which evoked feelings of guilt about the fate of their comrades. Even where psychoneurotic symptoms persisted or persist to the present day, material disablement from the occupational point of view is extremely rare.

The literature of accident neurosis has been reviewed by Pokorny and Moore (1953), but it contains little reliable information on the question of prognosis. Discussion by Purves-Stewart (Buzzard *et al.*, 1928) and by Smith and Solomon (1943) supports the view that it is essentially favourable. Purves-Stewart reported a small group of personal cases, all but one of which promptly recovered and returned to work on settlement. He made two points which are supported by personal experience. These patients are difficult to trace, and the large majority withdraw themselves completely from any form of medical supervision once the case is settled. Secondly, early and complete recovery is as likely to follow the irrevocable rejection as the success of the claim for compensation.

The paucity of reliable figures in this connexion stimulated me to follow up 50 consecutive cases of accident neurosis personally examined between three and four years ago.

Follow-up Study of 50 Cases of Accident Neurosis After Settlement

At the time of the first examination and at the time of settlement of their claims for compensation, each of these 50 patients (41 men and 9 women) complained of disabling nervous symptoms occurring after accidents. In 31 the accident had been industrial, in 18 a traffic accident. The ages of the patients ranged from 22 to 70, the average being 42.

Twenty-four of these patients were labourers or unskilled or semi-skilled workers falling into the Registrar-General's social classes IV and V—a proportion again much higher than that found in the population at risk. Fifteen were skilled workmen, three were (untrained) nurses. Other occupations represented were housewife, clerk, shop assistant, university student, haulage contractor, building contractor, and company director.

In three cases there had been no physical injury whatever, while in 35 it had been trivial—head injury without impairment of consciousness (13 cases) or with only momentary concussion (4), general shaking and bruising (10), minor back injury (4), lacerations of face and arm, and bruising of hand; in two further cases a finger was fractured. In the remaining 12 patients injuries were more severe—major fractures, multiple general injuries, or head injury with prolonged unconsciousness (30 minutes to four days).

In 36 of the 50 cases the psychiatric picture was typical of "accident neurosis," with conspicuous depression, restless sleep, hypochondriacal invalidism, disgruntlement, and self-pity in varying proportions. In 21 of these 36 cases there were positive physical or psychiatric signs of a hysterical reaction. In another five, phobic symptoms were related to the circumstances of the accident or to the occupation generally.

In four other cases a post-concussional syndrome after trivial head injury was elaborated and prolonged for more than two years, with positive evidence of hysteria. In four patients constant intractable disabling pain at the site of injury was the main symptom. In all three patients with hand injuries (two with fractured fingers, one merely bruised) a similar complaint was complicated by hysterical contracture of one or more fingers. There were two patients in whom depressive and psychoneurotic features were inextricably mixed, and one unusual instance in which a patient subjected to a particularly terrifying experience developed an anxiety state of great severity which rapidly responded to psychiatric treatment—after which he abandoned his claim for compensation.

Personal predisposition to neurosis was evident in the previous histories of only 15 of these 50 cases. Six of the predisposed patients were chronic neurotics, well known to their general practitioners over many years. One was a previous subject of depressive illness. In three other patients the history revealed earlier episodes of neurotic response to stress—for example, invaliding from the Army with intractable headaches which cleared up after discharge. Of the remaining five, four were inadequate or immature personalities with shiftless work records (one being an alcoholic) and one was a dullard.

Of these 50 cases, 42 had been settled by negotiation out of court, and in four the claims had been withdrawn or abandoned. The four remaining cases all came to trial, and in each instance the claim for compensation was rejected. In two instances the complainant failed to prove liability. In one the judge gave it as his opinion that the patient was malingering, and in the other that his chronic neurotic symptoms were not due to the accident. The average delay between accident and settlement was 26 months. Damages negotiated ranged from £20 to nearly £5,000, and averaged £454. In some instances, however, this represented an assessment based on the sum of physical and psychiatric disabilities, and

in a few it was made on the basis of only partial liability. In a group of cases where physical injury was trivial and residual disability unequivocally psychiatric the average award was only £152 (£181 in men, £83 in women).

The average interval between settlement and re-examination was a little over two years. Only two of the patients had undergone psychiatric treatment for their nervous symptoms (Cases 34 and 36, see below). All but four of the 45 previously employed had returned to their own or similar work. One of the four was in hospital undergoing plastic surgical treatment for his severe general injuries. One was a married woman who had not resumed her part-time occupation because of domestic commitments.

Illustrative Cases

Two of the 50 patients were occupationally disabled by psychiatric symptoms at the time of re-examination.

Case 30.—In 1955 a 42-year-old unskilled colliery labourer sustained a minor head injury without loss of consciousness. He was a man of low intelligence with a history of much vague ill-health in the past. After this head injury he worked for a week without interruption, but a few weeks later he developed attacks of weakness of the left side of the body and clouding of consciousness. When seen at this time he presented a difficult diagnostic problem, but exhaustive in-patient investigation was entirely negative, and attacks observed while he was in the ward were grossly hysterical. Apart from these attacks he had no disability whatever. The case was settled out of court by negotiation and he was awarded more than £4,000 in damages. It would appear that a diagnosis of traumatic epilepsy was sustained in this negotiation and subsequently accepted by the Ministry of National Insurance, which continued to pay him a pension of £3 16s. 6d. weekly. Since this time he has never returned to work. Re-examination in 1960 again failed to confirm epilepsy and yielded positive evidence of hysteria.

Case 34.—In 1954 a 27-year-old labourer sustained a minor concussion and bruising of his back when he was knocked off his bicycle. Repeated clinical and radiological examinations were negative, but he continued to complain bitterly of pain in the back and down the legs. There was nothing in his past or family history to indicate any predisposition to neurosis, but he continued to complain and did not return to work. He had a great deal of out-patient physiotherapy and rehabilitation and numerous conflicting specialist opinions. When examined two years after the accident there were no abnormal physical signs except those of gross hysteria. The case was settled three years after the accident for more than £2,500. However, his hysterical gait continued for 18 months after settlement, finally responding to suggestive psychotherapy in a psychiatric unit. Two years after the accident there was little or no real disability except that he continued to use a stick unnecessarily. He had never returned to work and shows no signs of doing so. He continues to draw a National Insurance pension for industrial injury.

Both these disabled patients were under regular medical treatment from their general practitioners. Of the remaining 48 patients, only five were in receipt of any form of medical treatment. The first of these was the severely injured man previously mentioned, whose marked hypochondriacal-depressive reaction had cleared up rapidly after a substantial financial settlement for his injuries. The second (heavily predisposed) patient, whose psychoneurotically patterned sequelae of minor head injury gave no trouble for two years after he had been compensated to the tune of £400, was suffering from a recurrence of anxiety symptoms in relation to the stress of several months' unemployment because of

redundancy. In three others psychoneurotic symptoms had persisted since the accident but were not causing occupational disability.

Case 13.—A 26-year-old labourer returned to work six weeks after a brief concussion sustained by striking his head on a beam at work, but although under no form of medical treatment he was so often late or absent that he was dismissed four months later. During the subsequent three months he held two light jobs for short periods. He then gave up work altogether, and 18 months after the accident he made a claim for several thousand pounds in damages, complaining of constant and steadily worsening headaches and dizziness. By the time the case was settled out of court (for £400) he had been idle for more than two years. After settlement he continued constantly to attend his doctor with headache, backache, insomnia, lassitude, etc., and to draw disablement benefit and hardship allowance under the National Insurance Acts. Finally a medical board terminated his pension, after which he promptly returned to work.

My original notes on this patient commented on his evasive manner and deplorable pre-accident work record, though he had insisted to several examiners on his "perfect health before the accident." His general practitioner's records, however, go back to a decade before his injury and reveal him throughout as "a regular attender at the surgery with a variety of complaints of the same kind as those he brought along after the injury . . . he has been the same ever since he left school."

Case 22.—While handling a piece of light furniture a 49-year-old shop assistant stated she "cricked her back." She did not report the injury, but sent for her doctor the next morning. She was confined to the house for 16 weeks, and, although there were at no time any positive clinical or radiological findings, she remained away from work for two years, during which period she attended the physiotherapy department of the local hospital. On examination at the end of this period she claimed total disablement by continual and steadily increasing pain in the back and down the left leg; and by depression, anxiety, and sleeplessness, which had begun 14 days after the accident. Total superficial sensory loss of stocking distribution up to the groin on the left side was the only abnormal physical finding: her behaviour was histrionic in the extreme. At this stage the case came to trial, and her claim for damages was dismissed on the grounds of lack of evidence that there had been an accident. She subsequently returned to light work, but continued to attend her doctor with multiple symptoms. He reported that "her condition is the same as it has been for 10 years. She was a neurotic before the accident, and I expect she will remain so."

Case 36.—A housewife aged 39 was treated by her doctor for functional nervous symptoms, and was given a prescription for a capsule of "carbrital" to be taken each night and for two codeine tablets to be taken three times a day. Unfortunately the labels were placed on the wrong boxes and the patient took two carbrital capsules on the same morning, with the result that she became drowsy. The error was discovered and caused disproportionate alarm. A pharmacist administered stimulants. The patient's general practitioner advised that she be kept awake, and sent her post-haste to hospital, where her stomach was washed out. Within the course of a few days she was in an extremely emotional state, though she had, of course, recovered completely from the "overdosage." Three months later she claimed gross and disabling psychiatric symptoms which she said had been greatly increased by the experience. Both she and her family attributed her condition entirely to the unfortunate accident and appeared almost to have forgotten her earlier history. The case was settled by a small payment a few months after it happened. Since then the patient has had a good deal of psychiatric treatment, including brief admission to two psychiatric units for electric convulsion

therapy. Review of the case-records indicates that recurrent depressive episodes had begun several years before the incident of the tablets in 1956.

In summary, only 2 of these 50 unselected patients with accident neurosis were still disabled by their psychiatric symptoms on re-examination two years after settlement. Both instances were characterized by diagnostic confusion, substantial lump-sum payments, and continuing National Insurance pensions for the results of the accident. In three other cases psychiatric symptoms persisted without occupational disablement: in each instance similar symptoms had been present for many years before the accident. Symptomatic recovery in the remaining 45 patients was as complete as their subsequent medical and occupational records indicated. The most they could muster were a few trivial residual symptoms of which "a queer feeling as I turn on the vacuum cleaner" and "some nervousness on overtaking in traffic" are fair examples. Of special interest was the disappearance of contractures in three cases of hand injury: two of these patients claimed some local discomfort in cold weather. Occupational phobias (for work at heights, driving heavy vehicles, and underground work) had also cleared up, and all five of these patients had returned to their previous employment.

Of 15 patients predisposed to neurosis, 11 had recovered after settlement; of 35 without predisposition all but one had recovered completely.

[Lecture II, with a bibliography, will be published in our next issue.]

LEPROSY: A REVIEW OF 79 PATIENTS SEEN IN LONDON

BY

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Leprosy became a notifiable disease in Great Britain in 1951. No figures have yet been published from official sources concerning the number of notified cases in this country in 1960, but Cochrane (1960) stated that the number of notified cases in England and Wales was 267. Eight years earlier he (Cochrane, 1952) quoted the figure of 100 notified cases in the same area. This increase in the incidence of the disease is to be expected in view of the post-war influx of persons from endemic areas.

The number of cases present but not notified must vary in different countries. Cochrane (1952), referring to 100 cases then notified in England, thought that there were perhaps 50 further cases undiagnosed or not yet reported, while Canizares and Combes (1952), reporting 32 cases of leprosy in New York State, concluded that most leprologists agree that for each reported patient there are at least three unreported or undiagnosed.

In the present series of 79 cases, two-thirds of the patients were immigrants from the Commonwealth who had arrived in Great Britain during the past decade. Although the incidence of leprosy is low in Great Britain, diagnosis often presents difficulties to doctors in this country, and for this reason the present series of cases is reported.