Current Practice

PRACTICAL PSYCHIATRY

Anxiety Neuroses and Phobic States. II—Diagnosis and Management

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In anxiety neurosis there are disturbances both of mental life and of body function. This duality is reflected in its investigation with equal profit by psychological and physiological means, in its contemporary treatment, which combines drugs, psychotherapy, behaviour therapy, and very occasionally psychosurgery, and in its differential diagnosis, which includes both mental and physical disturbance.

Differential Diagnosis

When account is taken of the life history and recent stress an anxiety neurosis is usually an understandable development. The patient may have experienced a previous attack of anxiety in similar circumstances, have neurotic traits in his personality, or have behaved in ways which suggest that his emotional security springs from his circumstances rather than from his essence. If therefore anxiety develops in a well-adapted and resourceful person in the absence of any convincing stress, or tends to be rather featureless and to lack the phobias, panic attacks, and episodes of depersonalization seen in neurotic anxiety, then the possibility of an underlying illness needs seriously to be considered. A host of conditions—slowly progressive cerebral disease, systemic illness, endogenous depression, and schizophrenia—can present in this manner.

Hyperthyroidism is the best-known example of an organically determined anxiety state. Though the traditional ocular signs are inconsistent, loss of weight despite a hearty appetite, a high sleeping pulse rate, and an enlarged vascular thyroid sometimes with a bruit generally suggest the correct diagnosis. Paroxysms of anxiety and severe hypertension raise the possibility of a phaeochromocytoma. It has recently been found that, particularly in men, malignant disease may in its early stages present with anxiety and depressive symptoms coming out of a clear sky.¹ In old people physical illness can give rise to anxiety states and other mental disturbances with great ease.

Not only may organic illness present with anxiety, but the physical accompaniments of anxiety may also simulate organic illness. Difficulty may be encountered when one of the autonomic disturbances of anxiety overshadows the others. Thus persistent complaints of, for instance, diarrhoea create the impression of physical illness. Inquiry will usually reveal the whole distinctive picture of the anxiety state, which the patient, so preoccupied with one symptom, has failed to impart spontaneously. In severe anxiety states, and particularly if situational phobias are marked, there may be complaints of dizziness (which is not always easy to distinguish from vertigo), episodes of loss of consciousness, and depersonalization. Both temporal lobe epilepsy and Ménière's disease may thus be closely simulated. However, the dizziness and episodes of loss of consciousness

in an anxiety state are not spontaneous as they are in paroxysmal organic disturbances, but occur in situations which provoke severe anxiety. The episodes of depersonalization seen in anxiety states last for much longer than they do in temporal lobe epilepsy. If they occur during attacks of panic culminating in unconsciousness, there is never the clear and orderly sequence of events characteristic of epilepsy.

Finally, though there is some overlap between neurotic anxiety and neurotic depression it is desirable to distinguish between them, since both their treatment and their prognosis differ in some respects. Neurotic personality disorder is usually more marked in anxiety states than in neurotic depression, and, probably because of this, the prognosis is worse. Retardation, resignation, and hopelessness are the hallmarks of depression: helplessness, with a latent combative quality easily roused to irritability and aggression, are those of anxiety neurosis.

Some Predisposed Personalities

Some understanding of the predisposed personalities and the stresses to which they are particularly vulnerable is a prerequisite to the effective management of anxiety neurosis. Though anyone who experiences sufficient stress, however robust his personality, will develop an anxiety state, under ordinary peacetime conditions most of those who break down have definable personality traits that make them vulnerable. This anxiety proneness is partly determined by hereditary factors. People are susceptible to psychological stress in many different ways. In clinical practice the following patterns are sometimes seen, but they are by no means the only ones.

The first is the woman who has never really fled the nest. Outwardly she may give an impression of independence: she may have married, brought up a family, and may seem to be a competent housewife in her own right. The impression of independence may be belied, for instance, by her inability to make any decision without her mother's advice; or her insistence on taking her parents on every family holiday; or by a comment such as, "Mother could make me on top of the world or deeply depressed with a word; sometimes a mere glance would be enough"; and finally by her succumbing to a severe anxiety state when her parents fall ill or die.

The second vulnerable group are men who have invested their self-esteem (and this includes their sense of masculinity) in their physique and physical fitness. Frequently the clue to a neurosis in middle age in an apparently stable, well-armoured, effective, vigorous, or athletic person is some threat to his physical integrity²; an infectious illness with an aftermath of fatigue, a slight injury, a fleeting attack of pain in the chest, or some experience which casts up the spectre of ageing and enfeeblement.

The third pattern is that of an anxiety-prone person who finds himself in a situation which fails to give him adequate

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assurance of or taxes him beyond his abilities. In men this often emerges critically on promotion. The rigid indecisive man becomes anxious when he is faced with demands for which his old habits and assumptions are no longer adequate. Another example is the boy who has been outstandingly successful at school, but at university finds himself only one of a number of very able students in a competitive situation: he has lost touch with a known scale by which to measure his powers. He is a small fish in a large pond; he will not bring a star down from the heavens; in his worst moments he cannot even imagine himself getting a degree. Some anxiety in competitive situations is of course normal, but if it gets out of hand it becomes not a spur to achievement but an obstacle. The corresponding picture in women may be that of a wife who has lived a very sheltered life. Her husband rises rapidly in the social scale, and she finds herself suddenly exposed to social responsibilities—glittering parties to attend, exacting dinner parties to give—for which her shy, retiring temperament is poor equipment.

A note of reservation should perhaps be entered here. A small proportion of those who break down with anxiety neuroses appear previously to have been quite normal, well-adapted individuals, and recent findings have provided strong objective confirmation for this clinical impression.

Management

All forms of treatment, however different they may seem, have two important features in common. Firstly, they facilitate communication between two people in an encounter which lacks the ready-made opportunities for this provided by ties of blood or friendship. Indeed, much of the doctor's value to his neurotic patients rests in his lack of involvement in their personal lives. Secondly, they help to replace the denigratory ideas such as "laziness" and "lack of will power" which neurotic patients often hold about themselves by less threatening ones such as "illness" and "symptoms." Unfortunately it is difficult to isolate psychiatric terminology from the value judgements of the community, and technical terms such as "paranoid" and "neurosis" are acquiring a pejorative flavour.

Psychotherapy

The formal systems of psychotherapy which attempt a radical revision of neurotic attitudes are impracticable in ordinary family practice. They are suitable only for a limited range of patients, and they demand more time than the family doctor could possibly spare.

Something, however, can be achieved by the doctor who employs the less ambitious means of helping the patient with psychological treatment of a supportive nature, utilizing his intimate knowledge of the social environment to improve in minor ways the patient's domestic and social adjustment. This can over the years contribute something of value. An important start has been made if the doctor creates an atmosphere in which the patient can air his problems and show emotion without fear of disapproval. A careful history and an attempt to understand the patient's predicament without prejudice are essential steps in creating this atmosphere. The patient is reassured to find that there is somebody who does not share the censorious view he has of himself; that his hypochondriacal fears are groundless; and that many others have had the feelings of which he is so ashamed. The process of discussing his problems with a person who, while sympathetic, has no axe to grind will often make him see them in a more realistic perspective. When mild anxiety states occur in fairly robust people, particularly if they have been under stress of a transitory nature, this may be all that is required.

Usually, however, it will be found that the anxiety state is the culmination of faulty personality development, and these

measures alone are not enough. In these cases it is important to define realistic aims, and it is here that a knowledge of the patient's accomplishments and personality is invaluable. Two extremes need to be avoided. The first is paving the way to disappointment by promising too much: an attempt to make the timid phobic housewife into an ardent traveller is sure to founder. The second is attempting to assuage the anxiety without paying heed to the patient's social effectiveness. In many ways the premorbid life of the anxiety neurotic can be seen as an endeavour to avoid anxiety at the cost of developing more effective modes of behaviour. Thus the mother-dependent woman is likely to have avoided anything which threatened to separate her from her mother and to have strenuously opposed, for instance, her husband's desire to move to a better job in another district. It is important to ensure that the patient's encounter with the doctor does not become just another instance of this type of behaviour: that he does not become merely another figure in the little circle of people on whom she is overdependent; while she, accepting pills in order to feel less anxious, is not in any way enlarging her life. The clearest example of this problem is seen in agoraphobic states. It is not uncommon to find that the patient, though gaining some relief through medication and simple psychotherapy, continues to take refuge from the outside world. This is unsatisfactory, because it is only through some encounter with her local community that it will be divested of its fearsome aspects.

Patients with anxiety states are, more than most people, prisoners of certain distorted assumptions which they make about the relationship between themselves and others. Many intelligent patients benefit from the opportunity to air these assumptions. This can be conveniently done by encouraging the patient to discuss the way he has reacted to recent stresses. Putting his feelings into words allows him to see them in a more realistic light and occasionally there is a very gratifying result.

A crane driver developed a mild phobic anxiety state. He was forced to go to work by bicycle because he had panic attacks on the bus. He took a pride in his work and was easily wounded by any criticism of it. At work his mates clamoured simultaneously for his services, and because he could not satisfy everyone he felt he was letting them down. When he talked about this he began to realize more clearly that his workmates were making impossible demands. Fortified with this view he told them that he would attend to them in turn and that they must respect this arrangement. His anxiety symptoms ceased.

Patients with an anxiety neurosis often ask their doctor for an opinion on important personal matters such as whether they should divorce their husbands or move house. He should be very wary of giving explicit advice. Some patients attempt to deal with their neurosis by escaping from the circumstances and the situations which may seem to them to be causing it. This can lead to a futile succession of jobs and moves. While not denying that frustration at work and unsatisfactory housing may contribute to the difficulties of a patient with a chronic neurosis, it is important to recognize that the patient's internal conflicts are likely to be more important. Often the comment, "I think I'll give up my job. Do you think I'm doing the right thing?" is not really a request for advice but an attempt to bring the conversation around to some problem at work. Rather than give direct advice it is often better to stimulate a discussion which enlarges the patient's view of the problem.

Many patients, and those with severe depersonalization symptoms in particular, are greatly distressed by feelings of impending insanity, or of complete loss of control that will send them berserk, or of a progressive decline that will render them totally helpless and dependent. The doctor who knows the illness can anticipate the patient's worst fears, and his reassurance brings profound relief. It is essential to bear in mind that in the more disabling phobic anxiety states the patient suffers from something more than a reaction to circumstances or some unfortunate habit acquired through learning. He

suffers from an illness which once established in severe form has a life of its own. Much sustained and patient effort may be needed to initiate improvement.

Though excellent and rewarding results may be achieved, particularly in early cases, family doctors will have patients with anxiety neurosis who have failed to improve appreciably despite a good deal of treatment. They can nevertheless be helped by his sympathetic interest and support. Many accept that their predicament is unlikely to change much, but are, all the same, grateful for the attention which helps to mitigate their distress.

Drug Treatment

Drug treatment should not be regarded as an alternative to psychotherapy but as complementary.

For a variety of reasons it is imperative to bring severe anxiety bordering on panic rapidly under control. The first two can be stated simply. Severe anxiety is one of the most distressing human experiences, and while in the throes of an attack patients are not accessible to psychological treatments such as behaviour therapy and psychotherapy. The third reason is best understood if we consider some ways in which normal and pathological anxiety differ. Normal anxiety is a preparation for contest; when the contest is over the anxiety fades. Someone experiencing normal anxiety knows why: on the day of the examination the student will accept that his dry mouth and thumping heart are related to the ordeal ahead; he will discern that the surge of anxiety when the examination hall comes into view is not occasioned by the examination hall itself but by what it portends. In pathological anxiety the source of anxiety is either not perceived or appears in disguise. The patient may explain away his irrational response to the situation by seizing upon the experience of anxiety itself. He will then complain that he is frightened of choking, of his heart failing, of having diarrhoea, of his knees giving way, even of dying: in short he is made anxious by the physical manifestations of his anxiety. Furthermore, ignorance of its real source may facilitate the development of a spurious association between the anxiety and the situations in which it occurs, so that these come to evoke anxiety in their own right. The patient will also be made anxious by the social repercussions of his anxiety—the humiliation of sweating, stumbling, and shaking in public. Thus, whereas in general normal anxiety is self-limiting, pathological anxiety is self-exacerbating; hence the need for intervention at an early stage.

Barbiturates.—The barbiturates are the best drugs available for the emergency treatment of *acute* and *severe* pathological anxiety. The best way of terminating a panic attack is to give 200 mg. of amylobarbitone sodium orally; when the panic attacks subside, barbiturates should be discontinued. In hospital a convenient way of reducing severe and persistent anxiety to a manageable state is by giving a course of six or so injections of 200 mg. of thiopentone spaced over a fortnight. The intention is to sedate the patient rather than to induce an abreaction of strong emotion or to help the reticent patient divulge his problems; for these purposes intravenous amylobarbitone is more suitable.

Though barbiturates are the best drugs for controlling severe anxiety their value in maintenance treatment is restricted by the risks of habituation—a tribute to their effectiveness but unfortunately a drawback to their use.

Benzodiazepines.—The best sedatives for maintenance therapy are the benzodiazepines—chlordiazepoxide, diazepam, and oxazepam. Habituation does not appear to be a serious problem with these drugs, but they have been used only since 1960 and the risk must be kept under review. They have the advantage over barbiturates that an overdose is less dangerous. They may cause drowsiness and ataxia, particularly in old people, so that it is advisable to begin with a low dose of, for

instance, chlordiazepoxide 5 mg. t.d.s. If after a week's trial this is well tolerated the dose can be increased to 10 mg. t.d.s. Patients on these drugs should be cautioned against drinking alcohol, driving, or using dangerous machinery.

Propranolol.—This drug, an adrenergic β receptor antagonist, has shown some promise in controlling the palpitations and other manifestations of autonomic overactivity which occur in anxiety states. It may prove to be of value in treating anxiety states in which palpitations are particularly distressing or in which they form the basis of an anxious hypochondriacal concern about heart disease.

Antidepressant Medication.—Neurotic depression often accompanies an anxiety state. It is sometimes alleviated by a monoamine oxidase inhibitor (M.A.O.I.) such as phenelzine, nialamide, or isocarboxazide. A M.A.O.I. is also worth a trial in anxiety states, even when they are not accompanied by conspicuous depression.³ Sometimes all that is required to treat a mild agoraphobic state is a combination of a benzodiazepine, a M.A.O.I., and simple supportive measures. However, it is essential to encourage patients with the milder forms of agoraphobia to make use of the increased confidence engendered in the course of such treatment to venture into situations that were formerly anxiety provoking. They should begin with the least stressful and proceed in graduated stages to the more onerous.

Any M.A.O.I. may cause dangerous hypertension if foods such as cheese, broad beans, Marmite, and Bovril, which contain high concentrations of amines, are taken. Dangerous interaction may occur between a M.A.O.I. and any of the following drugs: the opiates, pethidine, local anaesthetics, sympathomimetic amines, methyl dopa, and the tricyclic antidepressants. M.A.O.I.s are inactivated slowly: for this reason these foods and drugs must be avoided both during treatment and for 14 days afterwards. If there has been no improvement after a M.A.O.I. has been given in full doses (e.g., phenelzine 15 mg. t.d.s.) for three weeks it should be discontinued.

Hypnotics.—Insomnia is frequently troublesome in anxiety states. Mild hypnotics such as chloral hydrate, dichloralphenazone, and triclofos, and the more recently introduced benzodiazepine, nitrazepam, usually ensure a good night's sleep. If despite taking one of these drugs the patient still complains of lack of sleep, a difficult problem arises. If there is independent evidence that the patient is having very little sleep, a small dose of short-acting barbiturate such as quinalbarbitone, 50 to 100 mg., may have to be prescribed. As soon as the severe symptoms of the illness are under control an attempt should be made to return to one of the non-barbiturate hypnotics. Some risk of habituation exists, but this can be exaggerated, particularly in stable subjects, who may, without signs of tolerance, sleep soundly on the same small dose of barbiturate for many years. On the other hand the patient's complaint of lack of sleep may not give a clear picture of the true state of affairs. Patients sometimes wrongly ascribe many of the symptoms of their anxiety state to lack of sleep and tend unwittingly to exaggerate its severity; what is complained of is probably not so much lack of sleep but lack of oblivion. Indeed, recent work⁴ suggests that barbiturates actually curtail an important component of sleep. Behaviour therapy has not been mentioned, as it will be discussed by Professor Gelder in a future article in this series.

Social Management

A severe chronic anxiety state is likely to be associated with social disability. In these cases, no less than in schizophrenia and in other chronic psychiatric disorders, rehabilitation is important. It may be necessary to help the patient find work and accommodation and to provide him with the opportunity to enlarge his recreational and social interests. The community care of the socially disabled patient has been fully discussed

in a previous article.⁵ Here we shall confine ourselves to one aspect of it, an aspect for which the family doctor is particularly well placed. The family relationships of the anxiety neurotic are likely to be unhealthy, and here the family doctor's tactful attention can be invaluable. A deft touch is required: any radical change in family relationships will probably be resisted and it could make matters worse. But it may help to encourage, for instance, the overdependent housewife to be a

little more self-sufficient; to suggest to the husband who has taken over his wife's domain while she has been ill that he now relinquish it; or to urge the husband who becomes drunk and jealous on a Saturday night to abstain, or, if he appears incapable of modifying his behaviour, to refer him for treatment.

(Part III, with a list of references and suggestions for further reading, will be printed next week.)

TODAY'S DRUGS

With the help of expert contributors we print in this section notes on drugs in current use.

Vitamin D

Vitamin D is the name given to a group of steroid compounds which possess antirachitic properties. The most potent of these is vitamin D₃ (cholecalciferol); the most commonly used in clinical medicine are vitamin D₂ (calciferol) and dihydrotachysterol. There is no vitamin D₁—what was so called was later shown to be a mixture of compounds.

Pharmacology

Vitamin D₂ and vitamin D₃ are derived from the conversion by ultraviolet light of provitamins which themselves do not possess antirachitic activity. Ultraviolet light irradiation of a number of steroids will result in the cleavage of the carbon-carbon bond between C₉ and C₁₀ of the steroid structure; this is an essential step in the development of antirachitic activity. The provitamin of vitamin D₂ (ergosterol) is of vegetable origin and is found in yeast, fungi, and ergot; after irradiation ergosterol yields vitamin D₂ and tachysterol, a reduction product of which is dihydrotachysterol. The provitamin of vitamin D₃ (7-dehydrocholesterol) is of animal origin; it is found in the Malpighian layer of the epidermis, in fish liver oils, and in milk. The antirachitic properties of vitamin D₂ and vitamin D₃ differ among the species; in man there is little difference between them, but in general vitamin D₃ has greater antirachitic activity than vitamin D₂.

Vitamin D is fat soluble and requires the presence of bile acids for absorption from the gut. Normally vitamin D is readily absorbed from the intestine, mostly in the upper part of the small gut (especially the mid-jejunum), and it is then transported with chylomicrons into the lymphatics. The intestinal absorption of Vitamin D is reduced in patients with certain liver diseases, in patients with intestinal malabsorption, and in the presence of large amounts of mineral oil (liquid paraffin). About half of an oral dose of the vitamin is excreted via the bile into the faeces; minimal amounts appear in the urine. After intravenous administration about half of the dose is found in the liver, where it remains for several hours; lesser amounts are present in plasma bound to globulin and to albumin, in bone and the kidney (proximal convoluted tubules), and in the intestine and muscle. Once absorbed vitamin D undergoes conversion into a number of metabolites; some of these possess antirachitic properties and others do not. The most potent of these active metabolites so far discovered is 25-hydroxycholecalciferol, which has 1.4 times the antirachitic activity of the parent vitamin D₃ and which acts upon the target tissues at greater speed.

Actions of Vitamin D

Vitamin D exerts effects on many tissues of the body, but the principal sites of action are the gut, bone, and kidney. The major effects of the vitamin are on calcium and phosphorus metabolism. The intestinal absorption, the mobilization from bone, and the renal excretion of these minerals are all increased by the vitamin; the general effect is to increase the serum calcium concentration. There is a time lag of 12 to 24 hours between the administration of the vitamin and the initiation of these actions. The effects of vitamin D on the gut and other tissues are mediated through changes in protein metabolism; they are blocked by inhibitors of protein synthesis (actinomycin D). The time lag in the response to vitamin D is probably accounted for by the time taken to stimulate new protein synthesis and by the time taken for the conversion of the vitamin into more active compounds.

Vitamin D is closely interrelated with the actions of parathyroid hormone; and the vitamin appears to play a permissive part in the action of the hormone on bone.

Requirements and Sources

The normal requirements of vitamin D are not known with certainty. There is no doubt that in the past they were greatly overestimated, particularly in the case of children, in whom overdosage led to the serious complication of hypercalcaemia. The amount of the vitamin required varies with age and is influenced by pregnancy and lactation. A mean daily intake of 10 microgrammes (400 units) will prevent rickets in childhood, and this amount is probably adequate during pregnancy and lactation; smaller amounts (2–5 µg.) are probably sufficient for adults.

The ability of the skin to synthesize vitamin D is related to the duration of exposure to ultraviolet light and to the degree of pigmentation of the skin; coloured peoples are less sensitive to the effects of ultraviolet rays than are those with fair skin. Little vitamin D is made in the skin of city dwellers, and natural foods, with the exception of certain fish and eggs, contain little or no vitamin D. The major sources are foods fortified with vitamin D (milk in the U.S.A.; National dried milk and infant cereals; margarine) and cod-liver and halibut-liver oils.

Clinical Indications for Vitamin D

The only therapeutic indications for vitamin D are in the prevention of rickets in childhood, in the treatment of established rickets and osteomalacia, and in the management of hypoparathyroidism.