Current Practice

PRACTICAL PSYCHIATRY

Organic Psychosis

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The use of the word "psychosis" in the descriptive title of this category of mental disorder implies a degree of disturbance such that the patient is no longer able to correct or adapt his thoughts, mood, or behaviour with reference to the realistic demands of his current life situation. The mental disorder is symptomatic of some underlying physical cause—traumatic, infective, biochemical, neoplastic, or degenerative—hence the use of the adjective "organic" in the title. The nature and site of the organic disease, its rate of development, and the previous personality, including constitutional factors, will all influence the presentation of the mental picture.

Organic psychotic disorders are conventionally divided into two main groups, the acute and the chronic. In American literature the conditions are classified as the acute and chronic brain syndromes respectively. In European literature the acute psychoses tend to be termed "delirium," toxic-confusional states, or infective-exhaustive psychoses in a rather haphazard fashion. The chronic psychoses once diagnosed are labelled according to the underlying disease or to descriptive criteria—for example, post-traumatic encephalopathy with deterioration; pre-senile dementia.

The essential difference between the two groups is that in the acute syndrome the symptoms are reversible if the underlying organic condition can be corrected or ameliorated; while in the latter group the conditions are irreversible in that the pathological changes bring about permanent damage to the central nervous system.

The end result of such damage is frequently the mental state called "dementia." This term should be applied only to conditions characterized by progressive, irreversible damage to brain tissue and function. In the interests of accuracy it must be noted that the equation of acute conditions with reversibility of state does not always hold. Some chronic states have an acute onset with rapid deterioration, while occasionally an apparently chronic condition may prove to be reversible—for example, general paralysis of the insane or vitamin-B₁₂ deficiency.

Definitions

All organic psychoses, be they acute or chronic, affect all the mental processes. For convenient clinical descriptive purposes these are three in number—the processes of cognition, of mood or affect, and of behaviour. Cognition is the comprehensive word used to include all aspects of perceiving, thinking, and remembering. In any organic psychosis all three aspects of brain function will be affected, but the degree of involvement of each component will vary from person to person and also according to the duration and development of the illness. As a result the organic picture may be rapid in onset with gross impairment of cognition and alteration of mood with the concomitant effects of these on observable behaviour: or the onset

may be insidious with mild clouding of consciousness shown in lack of concentration or slight memory impairment, or in isolated episodes of aberrant behaviour not in keeping with the usual personality of the patient. An example of this occurs when a previously stable, good-natured, and conforming person begins to be irritable over trifles, uses obscene language, or drinks alcohol immoderately.

The essential mechanisms by which the symptoms are produced are as yet imperfectly understood but are the direct outcome of interference with neuronal function. For example, in alcoholic delirium there is an interference with the breakdown of glucose in the cerebral cortical cells due to thiamine deficiency. Poor nutrition, so often a feature in chronic alcoholism, leads to inadequate intake of thiamine (vitamin B₁). Deficiency of thiamine in the tissues leads to a decrease in the rate of oxidation of pyruvic acid, with the result that this compound and its reduction product, lactic acid, accumulates in the blood, urine, and in the cerebrospinal fluid. In this case the severity of clinical symptoms is related to the degree of thiamine deficiency. After several weeks of a diet deficient in the vitamin-B complex the patient will become irritable, nervous, and depressed. There will be some memory loss and impairment of concentration. These symptoms will respond to the administration of the appropriate vitamins. This clinical picture of malnutrition with its gradual reduction of activity and interest, lessened sociability, and increased irritability has very great implications for the behaviour of people in under-developed countries where chronic malnutrition is endemic.

Symptomatology of Organic Psychosis

Disorder of Cognition

This is shown by deficits in the process of registering, retaining what has been learned, and recall into consciousness of past memories. The forgetfulness experienced by the patient ranges from the irritating forgetting of recent events or knowledge—such as an address or a telephone number—through to complete disruption of all memory, recent and remote, with retention spans of a minute or less. Typically in the chronic organic psychoses recent memory is more disturbed than remote memory, at least until the terminal stages. This leads to such observations as elderly people being able to give a detailed and apparently accurate account of events that took place in childhood, but being quite incapable of recalling the current date, day, month, or year.

Disturbances of thought processes are also shown in episodes of faulty judgement, as, for example, when a previously able and experienced committee member forgets the thread of his argument, becomes irritable, repetitive, or loses his temper completely, and storms out of a meeting. Disruption of function attacks the most highly organized abilities first and later the more basic functions. Because of this an early sign of deterioration is an inability to deal with abstract concepts and a retention

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of the capacity to manipulate concrete situations. This can be neatly shown in clinical testing by asking the patient to define a number of well-known proverbs. When organic impairment has taken place, particularly with a well-educated person, there will be a loss of ability to define the symbolism of the proverb using abstract concepts.

In both acute and in long-standing chronic cases misidentification is common, the patient naming and responding to even close family members as if they were someone else. In the acute case the patient may appear to be operating at two levels of consciousness, in that the doctor may still be recognized in that role and the appropriate responses made while being at the same time identified with someone else in the patient's conversation.

A notable cognitive disturbance is the phenomenon of perseveration. Here the patient repeats the response to a previous

match whisky with his friends when in actual fact he had been in a hospital bed all that day. Other patients will rationalize their memory defect with such statements as, "I haven't seen the papers today yet," when asked the day and date. The memory loss may be very subtle in the early case. One lady in her early sixties later found to have a cerebral tumour presented with mild depressive features. The only organic disturbance found in the course of a long interview was an inability to recall her maiden name.

Testing for thought disorder in the suspected case is carried out quite simply during the conversation of a clinical interview and examination. Questions relate to the day, date, month and year, address, date of birth and other known biographical details. This quickly shows the presence of disorientation. Retention and recall is checked by giving the patient such simple exercises as the memorization of lists of numbers both

The Bender Gestalt designs are on the left. On the right is the attempt made by a patient with cerebral tumour who presented with a paranoid state and also had a left homonymous hemianopia.

question when asked further different questions. The continued repeated response which may have been appropriate to the original question is no longer appropriate to the succeeding ones. For example, an elderly lady on being asked the year replied 1642. On next being asked the year of her birth she again said 1642, but looked upset and perplexed. On next being asked the month of the year she began to say "sixteen" and then stopped and substituted the correct month. The inability to switch from one thought to another is characteristic of perseveration.

The phenomenon of "confabulation" may be noted among the cognitive disorders in organic psychosis. Here the patient covers up gaps in his memory by substituting imagined memories. The activity, which appears to have no conscious motivation, produces false recollections which may change from minute to minute and are often responsive to suggestion from the interviewer. The phenomenon, seen classically in the acute on chronic organic psychosis due to alcoholism called Korsakoff's psychosis, is exemplified by the patient who gave a long account of watching a football match and having a post-

forwards and back, by the use of serial sevens or by the Babcock Sentence Test. Of some value are the Bender Gestalt designs, examples of which are given above.

However, not all patients with organic brain damage make conspicuously deviant designs. Marked distortion, the rotation of figures, the separation of figures, the inability to reproduce the angle between two figures constituting one design, fragmentation, the drawing of straight lines for dots or curves, all denote brain damage. There are some qualifications, however; in the case of children it is important to distinguish between a lack of skill due to development, while emotional disturbance commonly produces disturbed reproduction. In long-term schizophrenics the drawings may be carelessly reproduced and appear strikingly deviant.

Disorder of Mood or Affect

Irritability, anxiety, depression, or apathy may be early features of the patient's illness. These feelings are frequently to be understood as a reaction to the awareness the patient has

of failing powers. Quite frequently a patient with pre-senile dementia will present with considerable degrees of depression, and it is only when the memory disturbance is noted to be much greater than that accounted for by the inattention and loss of concentration shown by depressed patients that the underlying dementia is considered. One patient suffering from general paralysis of the insane first came to attention after a determined suicidal attempt because of profound depression.

Elderly patients suffering from a dementing illness characterized by severe loss of memory may become very depressed and agitated during the period when they still have insight into the fact that they are no longer functioning efficiently. This depression disappears when the memory loss becomes so complete that they no longer have insight into their condition. They may show complete apathy of mood or emotional lability where mood changes follow one another quickly, unpredictably, and are superficial without real depth of feeling.

In acute organic psychosis the patient may be listless and lethargic, depressed or withdrawn. Less frequently there may be euphoria and excitement. Perhaps most typically the disturbance of mood is in the direction of anxiety and fear. This may be a response to terrifying disorders of perception, including hallucinations of a threatening nature. In acute organic states the hallucinations are predominantly visual.

Disorder of Behaviour

The manner in which a patient behaves is guided and controlled by his thought processes, by the interpretation of his perceptions, and by his current mood. Disturbance in one or other modality will cause change in the rest. Accordingly any significant change in behaviour inconsistent with the patterns of the previous well-established premorbid personality is suggestive of organic pathology. These changes may include social withdrawal, the abuse of alcohol, sexual aberrations—for example, homosexual soliciting in public in a person who has never shown any overt homosexual interest before. Irritability with loss of control, carelessness of speech or dress, and easy fatigability are all signs of early organic change in the behavioural field. As the illness progresses the behaviour disturbances will become more marked, with gross personal neglect, wandering, interference with other people's property (and this may include episodes of shop-lifting), the hoarding of rubbish, incontinence of urine and faeces, disturbance of table manners, bolting of food, and sleep disturbance with wandering through the night.

Organic disease of the central nervous system may in middle-aged or elderly people liberate behavioural forms entirely out of keeping with previous functioning—for example, a patient may develop what is thought to be a "hysterical" manifestation. This may be of a conversion or of a dissociative type. Where there is no evidence that the patient has ever used such psychological defences before, the onset of such symptoms for the first time in middle age should always be regarded as "release" phenomena from some underlying organic disease. Such a pathological change may not be immediately diagnosable, but careful follow-up studies over the ensuing months should be carried out.

While all patients with organic psychoses will show in some degree these disturbances of cognition, mood, and behaviour, and while all the conditions present in broadly similar fashion, it must be stressed that the underlying premorbid personality of the individual, including his genetic endowment, will cause each case to be unique in its presentation. It is also of great importance to bear in mind that, while attention is most frequently paid to cognitive and to intellectual defects, social, emotional, and behavioural deficits are as important, particularly in the chronic case in terms of management of the outcome.

Management of Acute Organic Psychosis

Four steps are essential in the management of patients with an acute psychosis of organic cause.

(1) There must be thorough investigation and treatment of the causative condition. The investigation will include a detailed history from relatives or friends.

(2) All inessential medication should be stopped, since drugs may be causing or complicating the clinical picture.

(3) Attention should be given to the nutritional requirements, paying particular attention to fluid balance.

(4) The patient, no matter his age, has clouding of consciousness and is disorientated for time, place, and person. If he is quiet and apathetic he will require no special nursing attention. Good anticipation of delirious states may prevent the fully blown picture emerging. Factors which are considered to predispose to the onset of delirium are the presence of brain damage due to any cause and at any age; a history of alcoholic indulgence or drug habituation; and the increased likelihood if the patient is over middle age. In addition sleep deprivation, acute fear of the implications of the illness or of the operative procedure, or poor communication between the patient and the medical team may predispose to an acute organic psychosis.

In the prodromal stage the patient may be reported to have, or complain of, fleeting confusion—"I get all mixed up"—or show restless anxiety and irritability. He may have vivid frightening dreams. Such symptoms should alert the clinician, and a suitable tranquillizer should be given, such as thioridazine 50 mg. t.d.s. If these symptoms are ignored then the picture may in a matter of hours deteriorate into an acute psychotic condition with danger to the patient. His attention will fluctuate and he will be frequently be afraid. He may try to escape from or defend himself against the frightening distorted perceptions of illusions and of hallucinations.

Slow Movement

The key to the approach to such an acutely disturbed patient is calmness and slowness of movement. Any movement towards the patient should be slow, leisurely, and non-threatening. The voice should be soothing and gentle. Any sharp movement or anxiety in the voice may well be construed as threatening by the patient and produce the very reaction one wishes to avoid. Physical restraint should be the last resort, since most patients can be examined and treated if plenty of time is taken. If physical restraint is unavoidable—as for example to give an essential drug by injection—enough helpers should be available with one person holding each limb. In this way people are much less likely to lose their tempers or to get hurt. Physical restraint—for example, leather shackles, folded bed linen, or towels—for the purpose of confining the patient to free staff for other duties should never be practised. The already excited patient is in this situation utterly panic-stricken and may quickly become exhausted in trying to free himself; similarly with the use of security rooms, which are the old padded cell in a new guise. This anonymous isolation adds to the patient's distress and fear so that greater amounts of sedation are required, thus adding to the patient's toxic state. Whenever possible the delirious patient should have special nursing and be allowed as much movement as is consistent with patient and staff safety.

While conscious the patient should not be left alone. The calm, soothing, non-threatening manner of the attendant is conveyed to the distressed patient and this in itself is effective in allowing him to settle on lower doses of drug therapy. Of importance in general management is the provision of adequate lighting. If the room or ward is too dark the presence of shadows will act as foci for illusions for the confused, disorientated patient. If the illumination is adequate without being irritatingly bright the patient is able in part to be

reassured by the absence of objects and perceptions that he interprets as malign; he is better able to orientate himself.

Drug Treatment

A wide range of drugs is now available to cut short acute confusional states, and it is best that each practitioner gets to know the potential of one or two drugs really well and to keep to these. The major phenothiazines—for example, chlorpromazine and thioridazine—are effective in doses of 100 mg. intramuscularly immediately, repeated in two to three hours if required for two or three more occasions. By this time the patient is usually sufficiently settled to allow oral medication of 50–100 mg. three times a day as indicated by the patient's response. The former drug should not be used where liver damage is suspected or known. Thioridazine Retard 100 mg. b.i.d. may appropriately be given. If the patient is able to take oral medication chlorthalidoxepoxide and a similar drug diazepam have also been used to control florid delirious symptoms, the former in doses of 50–100 mg. daily and the latter in doses of 10–30 mg. daily in divided doses. The old standby of paraldehyde should not be used nowadays. Diazepam may also be given in severe cases being treated in hospital by intramuscular injection 10 mg. and can be repeated after an interval of not less than four hours. Elderly and debilitated patients should be given half the recommended daily dose. When the organic condition is in part due to malnutrition which has either been diagnosed or suspected intravenous injections of multivite preparations are of value.

If the organic condition responds to the appropriate treatment the symptomatology of the acute psychosis should be controlled very quickly and treatment tapered off after three to four days. A number of patients have complete amnesia for the period during which they were psychotic, and they should be reassured about the naturalness of this and should be dissuaded from making any attempt to try to recover memories. Some patients become mildly anxious about this amnesia and are not helped by the account of their behaviour while psychotic by kind friends and relatives. They may require reassurance about the fact that such an acute psychosis is possible in anyone and is not to be taken as a sign of profound mental instability with implications for heredity.

Management of Chronic Psychoses

Management must be geared to the point to which the chronic condition has developed. In general every effort must be made to keep the patient at work, at home, and active within the limits of his capability. The anxiety and reactive depression of the initial response to the implications of the organic disease process should be helped by allowing the patient to talk about his feelings. This ventilation of feelings will have to be repeated on a number of occasions. These feelings may include fear of the future, of dying, and of anger—very often with the doctor for his failure to be omnipotent and to cure the patient. Young brain-damaged accident victims will be deprived of normal adolescent social activities. Because of this they may act out their feelings with impulsivity. Judicious drug therapy may control the symptoms if they are distressing. Care should be taken that the drug used for the treatment of anxiety is neither cumulative in its effect nor positively contraindicated, as, for example, the use of phenobarbitone in elderly patients with organic brain disease; phenobarbitone will make them worse even in small doses. Indeed, barbiturates have no place in the treatment of any organic psychosis.

In the general management of the chronic conditions the patient should be left in the environment which he knows best. Changes of environment, especially if rapid or repeated, add to the confusion experienced by the patient who cannot orientate himself correctly and quickly becomes even more confused. The failing memory may for a short time be helped by the patient jotting down aides-mémoire, but this technique soon is of no avail as the memory disturbance progresses. Tasks either in the setting of a sheltered workshop or within the home should be appropriate to the current ability of the patient. The tasks undertaken should be as realistic as possible and must have some value, not necessarily monetary value. An old, forgetful person living in the home or a young man, brain-damaged as a result of a vehicle accident, can be given simple household tasks which can be valued for their positive contribution to the running of the home. Even the totally demented person is responsive to the feelings in the environment where the attendants, be they members of the patient's family or of the hospital caring staff, are impatient, brusque, off-hand, or intolerant. The tone of voice, the abruptness of movement and the fleeting contacts are all unmistakably registered by the patient at a mood level even though coherent conversation is no longer possible. The result is that the patient reacts with aggressiveness, which is frequently shown in destructive behaviour or in incontinence of urine and faeces.

I have frequently seen unsympathetic nurses "punished" by elderly demented patients by having to clean soiled beds.

In the general management of the chronic organic psychotic patient such matters as mobility with care of the feet, the provision of non-slip floors, and the avoidance of hazards at floor level whereby the patient might trip and fracture a leg are required. Care should be taken of personal hygiene. The patient may hoard rubbish, and while this can be permitted a weekly clear-out of pockets and handbags usually keeps the situation in some sort of control. By keeping the patient mobile the problems of incontinence of urine and faeces are avoided. Patients who have become faulty in their toilet habits should be taken as a matter of deliberate policy every two hours to the bathroom. In this way control is kept and laundry bills are cut to a minimum. More importantly, rejection of the patient is less likely to take place.

The organic psychotic patient who has become mildly paranoid, believing that people are trying to kill him, or who has become restless and interfering, may have such symptoms well controlled by the use of phenothiazine drugs—for example, thioridazine in doses of 25–100 mg. t.i.d. as required. Sleep is very often a problem in the chronic psychotic patient. This can be helped by not allowing the patient to doze or sleep through the day, by giving hot milk at night, or by a warm bath just before going to bed. Sedative drugs should be used as infrequently as possible. The barbiturates, while useful in the short term, may in the long term become drugs of habituation with the need for increased dosage which in itself becomes a toxic factor. Chloral hydrate and glutethimide are better drugs. A good diet is essential for all these patients. As the patient becomes more demented his table habits may deteriorate and food will have to be presented finely chopped or minced so that the patient does not bolt it with the attendant danger of choking. Once the patient becomes bed-fast care of the skin to prevent bed sores occurring over pressure points is essential. For as long as possible the patient's bowel and bladder needs should be met by the bedside commode. Indwelling catheters have nothing to recommend them.

(This article will be concluded next week with an account of the illustrative case histories.)