Personality and mentality change relatively little with advancing years. Some impairment of memory functions, psychomotor slowing, greater difficulties in adapting to new situations and of learning in general are of little practical importance during the later part of life. Decreasing competitiveness and increasing disengagement of interests and of involvement with the lives of others can be seen as leading to optimal adjustment of the elderly within modern society. These minor shifts in personality functioning are probably the result of subtle age changes in the cells of the body and especially in those of the brain. Unfortunately, the ageing brain, the ageing mind, and the ageing person within society are prone to undergo pathological changes and to be subjected to stresses resulting in psychiatric illness, disability, or invalidism. On the basis of house-to-house surveys it has been discovered that this is the case in 20-30% of the elderly population as a whole, and that this high incidence of psychological disturbances increases further within this population with rising age. Many very old people remain especially well preserved and robust, but these studies established that overall 10% showed defects or symptoms which could be attributed to pathological changes in the brain, though these were of a seriously disabling sort in only 5-6%. Clear-cut and serious depressions were found in only 1-2% of elderly populations, but in contrast to brain disorders these occurred mainly below the age of 75. Well-defined disorders of character and neurotic syndromes of disabling severity were encountered in 5-9%, but a further 10-15% complained of milder preoccupation or symptoms to the survey teams.

General-practice studies have revealed that family doctors tend to be aware of only half of the psychiatric disorders in their elderly patients. Old people are but rarely referred to psychiatric outpatient clinics, and in comparison with younger persons patients over 65 are sent to mental hospital with a request for admission far in excess of any statistically based expectations. The weaknesses of our hospital services for elderly people who suffer at the same time from physical and mental disabilities, and whose families can no longer cope with them, have been once again highlighted in a recent leading article in the *B.M.J.* (23 March, p. 723). One author is quoted as having said about these geriatric patients that they “are usually labelled selectively from their multiple pathology with the diagnosis best calculated to gain admission by a particular hospital.” As the leader remarks, instead of the patient being shaped in Procrustean fashion to the bed, the bed is shaped to the patient.

It would be quite unrealistic to expect that hospital services for elderly people will be extended and improved in the foreseeable future to an extent where sudden demands for hospital beds will be met at all times and under all circumstances. In the present mounting crisis there is only one way open: better co-operation between family doctor, local authority health and social services, the geriatrician, and the psychiatrist. This is being achieved in many areas, and there have been numerous reports. The keynote that will be struck again and again in the present article is simply this: early recognition and appraisal of senile mental disorders by the family doctor should lead in all instances in which disorders due to senile brain changes are suspected to early co-operation with social, local health, and hospital services. Clearly, occasional errors in initial evaluation or sudden clinical changes for the worse demanding emergency admission cannot be avoided in every case, but in the great majority forward planning should be possible. This will ensure not only that the patient will receive expert treatment where this might fall outside the family doctor’s province, but, more important, that social services, day hospital attendances, and temporary and terminal admissions can be arranged in an orderly manner. To return to the starting-point of this discussion, beds will thus not be blocked by emergencies produced by neglect, but will be occupied at the right time, for the right time, by the right patients. Family doctors in some areas may still find that they receive insufficient co-operation from their hospital colleagues, but they should be encouraged to press their demands for rational kinds of assistance. Old people and their relatives are often resistive towards measures designed to be in their best interest. Where the doctor is really motivated towards helping them, persistent persuasion is usually successful in the end. Failure in a small minority of old people, who have almost always been deviant personalities with marked hostile or eccentric attitudes, may have to be accepted, but should not be allowed to obscure our attitudes to the general problem.

**Minor Conditions**

The presence of minor disorders in one out of every five elderly persons is probably not very different from the prevalence of character and neurotic disorders in younger subjects. The type of the conditions seen towards late life, however, changes considerably. Rarely encountered are delinquency and acting-out disorders of all kinds, as well as classical hysterical states. It may be that these personality deviations and disorders are hardly ever seen in elderly persons living in the community because they have led to severe social declines earlier in life, so that these sufferers tend to have drifted into various institutional settings. Probably the real occurrence of these disorders does in actual fact diminish with rising age and with decline in sexual conflicts due to a lessening of libidinal tensions, and also on account of a diminution of the outwardly directed attitudes of the ageing personality.

**Sexual Problems**

Elderly persons only rarely come for advice concerning sexual problems. This is probably not so much related to the Victorian attitudes of a previous generation as to the observa-
tion that in most persons sexual interests and activities wane very gradually, or are occasionally preserved within a framework of a successful marriage into the highest age ranges. Where the age, sexual opportunities, or where libido declines with age, impotence seems to develop pari passu. In a continuing marriage relationship sooner or later sexual activity is gradually given up by tacit mutual agreement and without causing anxiety or distress to either partner. Sudden cessation at the instigation of one partner points to psychological causes, such as the wish to discontinue an activity which has never been satisfactory, or the beginning of an illness, especially of a depression. Increase of sexual demands or uninhibited behaviour, as well as ideas of jealousy, also indicate a mental disturbance, but should not be accepted unquestioningly as evidence of irreversible mental decline. This is also not usually the cause of transgressions against children by old men, which are in any case of much rarer occurrence than paedophiliac acts committed by younger males with homosexual orientation. These old men have usually not shown any previous sexual deviations but have tended to overvalue their potency. Its waning in the presence of preserved libidinal drives may lead to a regression towards childish sexual activity, not surprisingly matched with children. One is dealing with a temporary phase which will pass with some support and guidance. More important from the family doctor's point of view is the management of sexual activity after urogenital operations, coronary infarcts, and other forms of cardiac impairment. Much anxiety and distress can be avoided by advice and reassurance based on exact knowledge of the patient's sexual situation and the likely effects of sexual activity on his physical state.

Alcoholism

Alcoholism arises occasionally in old age. It is usually related to anxiety and depression and is often condoned or even unintentionally induced by the old person's family. Hypochondriacal anxiety attacks may have been treated with drams of whisky or brandy, and ever-increasing quantities are gradually obtained by means of emotional blackmail. Unfortunately, liver and brain damage are easily produced. Taken in time, the addiction can be stopped in most instances by gaining co-operation of the family. Isolated old people will usually require hospital treatment in the first instance, and then transfer to a home suited to the patient's mental state. Deconditioning therapy is not to be recommended at this age.

Hypochondriasis

Diminishing outward-directedness with increasing age, as well as emotional disengagement, can be seen as developments which fit in harmoniously with the social roles of older persons. However, people who have always tended to be apprehensive, worried, anxious, and concerned may begin to show phobic or obsessional symptoms, usually associated with mild depression. The commonest minor psychiatric syndrome in the elderly is an anxious hypochondriasis, sometimes, but by no means always, in exaggeration of physical disease or disability. It can be easily seen how increasing tending inwardly upon oneself plus increasing anxiety-proneness will result in fears concerning bodily contents, especially the bowels or other abdominal and pelvic organs. Again depression should be looked for and treated, and external sources of anxiety should be sought and an attempt made at their removal. Marked worsening of previously subclinical neurotic propensities is often produced by changes in family constellations, or the development of psychiatric disorders in other members of the patient's family, especially in a single daughter looking after the patient. Here the help of a social worker with psychological insight may be invaluable. Where none of these aetiological factors can be discovered, or where (more frequently) they are irremediable, much alleviation can be produced by fairly frequent reassuring interviews of very short duration, and by the use of mild tranquillizers, such as diazepam in a dosage of 2 mg. t.d.s. Medication of this kind may also remove sleep and appetite disturbances, which in the absence of physical causes are almost always due to mild emotional disturbances.

Affective Illnesses

Major affective disorders are essentially illnesses of late life. In both men and women the average age at first attack is between 55 and 65, and depressions for the first time in life have been observed to occur in very old people. Possibly the more classical manic-depressive psychoses with marked hereditary loading usually start at an earlier age. Illnesses with a later onset show less hereditary predisposition and possibly more in a way of external aetiological factors such as bereavement, serious illness in the spouse, moving away of children, loss of home, retirement, or unaccustomed physical illness. There is, however, no great difference in the clinical aspects of affective illnesses first appearing at different ages. Their response to treatment is the same, in that almost all attacks can be brought to an early termination. As soon as depression is recognized drug therapy should be instituted by the family doctor, and he should apply the preparation with which he is most familiar, especially as far as its side-effects are concerned. In my experience there is not much to choose between imipramine and amitryptiline; one may be better tolerated than the other by individual elderly patients and a switch-over is easily made. Toxic symptoms are obviously more readily produced in frail elderly persons. Most troublesome are mild delirious reactions, so starting doses should not be more than 10 mg. t.d.s. This dosage can, however, be increased in most patients within a few days to 25 mg. t.d.s., and to 50 mg. t.d.s. unless significant improvement has occurred. Even higher dosages may be used in hospital practice. Provided there is some improvement after the first week or two, it is, especially in women, well worth while to persevere for four to six weeks before abandoning therapy with either imipramine or amitryptiline. Initially, anxiety and agitation may in addition require a more quickly acting preparation, such as diazepam 2 mg. t.d.s., but this should be withdrawn as soon as possible, as in the elderly polypharmacy should be avoided whenever possible even more strenuously than at earlier ages. When difficulties arise, when there is no response after two weeks, or when the response seems inadequate, psychiatric advice should be sought. Only when patients or their families resist this the family doctor might try the effect of a monoamine-oxidase inhibitor with which he is familiar—again increasing dosages more cautiously then in younger persons. In spite of recent suggestions to the contrary (Today's Drugs, 20 April, p. 164), it might be safer to let a few days pass before the change-over. Earlier referral to a specialist is indicated where the patient lives alone or is severely agitated and impertinent, calling out irritation or even hostility in his family.

Suicidal Ideas

Persistent suicidal ideas and even the most half-hearted attempts should also lead to psychiatric consultation. In the general population the suicide and attempted suicide rates increase steadily and unimitttingly with rising age. Suicidal acts in the elderly, to a far greater extent than in younger persons, tend to be associated with circumscribed depressive illnesses, even though in many cases they may also represent appeals for help. Of special danger in this connexion is hypochondriasis of recent origin, often in persons without earlier concerns with physical matters. In them more clear-cut depressive signs may remain unobtrusive for long periods. A morbid, insidious form of depression may also occur in the socially isolated and in the housebound elderly chronic sick.
inquiry often leads to the recognition of feelings of self-depreciation, guilt, and irrational hopelessness; there may also be a history of unexplained weight-loss or of recent sleeplessness. However, these more insidious depressions frequently respond less well to antidepressive medications, and attempts at alleviating the reality situations should also be made along common-sense lines.

Family doctors may be tempted to treat hypomanic states with tranquillizers like haloperidol, up to 9 mg. daily, but specialist advice should be sought in most instances. Mania in the elderly shares with depression a tendency to frequent recurrence or even towards persistent mental invalidism short of severely disabling illness. Doctors still fail too often to recognize relapses at an early date. Long-lasting drugtherapy appears to alleviate these forms of invalidism in most instances, but a good deal of psychotherapeutic support, of a kind which is well within the scope of general practice, is needed to get the patients’ and their families’ continued cooperation. Some forms of maintenance therapy, especially that of manic states and mixed states with lithium salts, are still at an experimental but promising stage.

Persecutory States

Like members of other minority groups of diminished status, elderly persons are especially prone to feel slighted, unwanted, or even actively persecuted. Paranoid experiences occur commonly in the setting of delirious reactions associated with extracerebral disease. These are then transitory, variable, fleeting, and unsystematized. More persistent persecutory ideas or experiences may colour the dementing illnesses of old age. These can often be derived directly from cognitive defects—for example, the tendency to attribute the mislaying or hiding away of personal possessions to theft. Delusions of marital jealousy may betray by their rather laughable nature that they arise on a background of intellectual deterioration, but they may all the same bear an insidious and almost altogether inscrutable pattern. The watchful physician, who is ever on his guard, learns to be on his guard against them; they envy the patient, they want to get him out of their home. In others, the persecutions may in addition take a more extreme form: smells are directed at them, they are observed, perhaps with special apparatus, in compromising situations. Finally, there is a group who for the first time exhibit the classical symptoms of paranoid schizophrenia—voices discussing the patient in the third person and commenting on his actions; or influence and passivity phenomena are clearly described by the patient. As is characteristic for paranoid schizophrenia, most personality functions remain relatively intact.

In persecutory syndromes of the elderly the previous personality, albeit with all its shortcomings, remains unchanged by the illness, and the mere removal of symptoms is sufficient to restore the patient to the status quo. Fortunately, this is now possible through the use of phenothiazine drugs (major tranquilizers). The main problem is to get the patient to take one of these preparations in sufficient dosage and for adequate periods of time. In this the family doctor is more likely to be successful than the psychiatrist. There is no point in trying to convince the patient of the pathological nature of his beliefs and experiences. Drug therapy is recommended in order to protect the patient from his experiences—to shield his "nerves" from their effects. As in the case of depression, the doctor should use the phenothiazine preparation with which he is most familiar. I find thioridazine least toxic and most effective, starting with a daily dose of 50 mg., and increasing this by 50 mg. steps at weekly intervals until all symptoms have disappeared. On account of risks of retinal damage a daily dose of 600 mg. should be used only in the most rare cases, and even then only after expert advice. Failure to remove all symptoms, or the occurrence of restlessness, tongue-rolling, and mouthing movements, are indications for inpatient treatment. The first is almost always due to the patient not taking the prescribed dosage; the second is usually associated with an idiosyncrasy requiring changes of preparation, the use of anti-parkinsonian preparations, and other manoeuvres demanding greater experience in this area than is likely to be acquired by the non-specialist. Almost all patients can be "cured." Retrospective insight is, however, achieved rarely. As soon as all symptoms have disappeared, dosages should be reduced gradually until a maintenance dose has been discovered. This usually lies in the region of 100 mg. (in the case of thioridazine), and need be given only once in the 24 hours, preferably at night. An attempt should be made to withdraw treatment altogether once every six months, resuming drug therapy as soon as recurrence is reported. It is now possible to return to a state of relative normality a very high proportion of patients, who in the past showed but rare remissions and who often required long-term mental hospital care.

Organic Mental Disorders

Sudden restlessness, disorientation, hallucination, or disorganization of behaviour are almost always the result of acute medical or surgical conditions. The correct treatment of these delirious reactions is of course that of the causative physical disease. Where the condition is not very severe and its cause has been diagnosed treatment at home may be possible. Before therapeutic measures—for example, antibiotics—have had time to act, the patient’s mental condition may require separate attention. For obvious reasons sedatives are contraindicated, but a tranquilizer like promazine hydrochloride 50 mg. up to four doses a day is safe and may be effective. In undiagnosable or more severe cases emergency requests for specialist’s opinion and admission are definitely indicated.

Memory deterioration, disorientation, declining ability of self-care, and incontinence, all developing over a number of months, give an early warning of the gradual development of one of the dementias of old age. The measures involving cooperation with community and hospital services recommended in the first section should be initiated. Family care is usually advisable, because the dementing patient’s faculties are better preserved in accustomed surroundings and within a sphere of continued domestic activities. The burden on the family may be heavy, but most relatives prefer this to early relief by admission. Rejection occurs as a rule only where no attempt is made to ease the load by expert medical and social measures. Among others, painstaking physical care is necessary to avoid the sudden development of illnesses leading to delirious reactions. Small amounts of tranquilizing preparations may be given for limited periods, and the change should be rung with night sedatives such as chloral hydrate or the more quickly eliminated barbiturates—for example, amylobarbitone sodium. The watchful family doctor will be able to gauge the point
where temporary or terminal hospital admission becomes necessary. The geriatrician (or, where the patient's physical health had been good, the psychiatrist) will have had previous knowledge of the case and thus be more likely to offer early relief within a rationally conducted health service for the aged. Emergency problems will continue to be unavoidable in the case of socially isolated old people, but these present a small minority even under modern living conditions.

MEDICINE TODAY

Investigation of Intermittent Claudication

"Medicine Today" is the television series for actors produced by the B.B.C. Advice on the preparation of the programme is given by the Association for the Study of Medical Education.

The programme on B.B.C. 2 on 3 December was on the subject of arterial disease of the legs. Printed below is an article prepared with the help of an expert contributor to complete the television programme, which will be repeated on B.B.C. 1 on 10 December at 11.15 p.m.

Intermittent claudication simply means intermittent limping, but it has become a term specifically applied to the interference with exercise caused by pain from an ischaemic muscle. Therefore one can designate a pain as intermittent claudication only if it is produced by exercise and relieved by rest.

History

Pain.—The pain of claudication may vary from a slight ache to a severe cramp-like pain. The patient can "walk through" the mild ache, but the severe cramp stops him immediately. The pain usually wears off after one to three minutes of rest, and any pain that lasts longer is not due solely to muscle ischaemia. One sees many patients in a vascular clinic complaining of pain in the calves while in bed, or pain in the thighs and back immediately after getting up from bed or a chair. This type of pain is never ischaemic in origin, since intermittent claudication hardly ever begins after walking less than 10 yards. The cause of the pain is its diagnostic feature, and will in almost every case separate those patients with backache, sciatica, etc., from those with arterial disease.

Site of Pain.—The pain of intermittent claudication commonly appears in the calf muscles, but no muscle group escapes. The site of the pain may give an indication of the site of the vascular occlusion. Calf pain is usually due to a block of the superficial femoral artery in the thigh. Buttock pain is due to internal iliac artery occlusion, and pain in the calves radiating up into the thighs to aorto-iliac or generalized iliac artery disease. This pattern is not constant, and pain in the sole of the foot can be due to aortic disease, and calf pain to disease of the calf muscle vessels.

Intermittent claudication can occur in the arms as a result of subclavian or innominate artery disease, and must be distinguished from angina pectoris radiating down the arm.

Exercise Tolerance.—The time taken for the pain to appear is directly related to the amount of exercise being performed. Thus a patient may be able to walk 100 yards on the flat but only 50 yards uphill. This makes the distance as judged by the patient a very unreliable measurement, but when patients are exercised in a standard manner on a treadmill their exercise distance is remarkably constant.

Claudication may appear gradually, the walking distance at first being 400 to 500 yards and gradually shortening over a few weeks, or it may appear suddenly at a fixed distance and not change. Claudication in one leg at 50 yards may mask symptoms in the other leg that would have appeared at 100 yards; the patient will believe this leg to be normal and may have an unpleasant surprise after the bad leg is cured.

Relief by Rest and Further Exercise.—The relief afforded by rest is usually complete, though some patients complain of an ache that continues after the cramp-like pain has abated. The second walking distance is usually very close to that of the first.

Duration of Symptoms.—It is important for assessing treatment to know the duration of the symptoms and their behaviour during that period. In many cases it is not possible to be sure of the rate or direction of progression of the disease without observation for many months. Spontaneous improvement can occur as long as one year after the beginning of symptoms.

Associated Symptoms.—Intermittent claudication is muscle pain. The circulation to the skin is usually adequate, but most patients complain of cold feet at night and may notice that their feet become colder as they walk. Some develop paraesthesia and numbness in the lower legs as the claudication pain starts to appear. These symptoms are relieved by rest, but they do not disappear as quickly as the muscle pain. Symptoms of this type are more often associated with musculo-skeletal disease, and if they are prominent they may be so misleading that the true diagnosis of arterial disease is missed.

General History.—Atherosclerosis is a generalized arterial disease, so it is important to know if the patient has had any signs of cardiac or cerebral disease. As many as half will be found to have had angina, coronary thrombosis, or cerebrovascular accidents. It is no use curing a man of a 50-yard claudication if his angina pectoris stops him at 60 yards.

Examination

Inspection.—The legs are often of normal colour, but if the ischaemia is severe pallor, blueness, and even gangrene may be present. The skin of the feet is usually dry and slightly scaly, but the interdigital clefts may be moist and the site of a fungus infection. The nails may be thickened. Loss of hair is not a valuable sign.

If both legs are raised the affected food will blanch faster than the good foot. When both are lowered below heart level the bad foot will become red slower than the good side, and after a few minutes it may become blue and congested. Ischaemic ulcers, infection around the nails, and gangrene may be obvious.

These symptoms constitute what is loosely classed as "pre-gangrene," and a careful examination to detect them is important, as their presence indicates that the circulation is on the borderline of failure and active treatment is strongly indicated.

Pulse.—The most valuable part of the clinical examination is the palpation of the pulses.