EMERGENCIES IN GENERAL PRACTICE

SENILE CONFUSION

BY

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Senile confusion may give rise to an emergency in general practice in one of two quite different ways: a call is received, usually at night, because an old man or woman has suddenly begun to behave in a highly disturbing and sometimes dangerous fashion, on account of an acute senile confusional state; or, in the course of long-standing senile mental deterioration, a medical, psychological, or social situation has arisen suddenly, demanding immediate action. An acute senile confusional state is often, though by no means always, a complication of chronic senile confusion, which may therefore be discussed first.

Chronic Senile Confusional States

This term is used here to label the all-too-familiar clinical picture of a senile and ill-cared-for person, with a bewildered expression, moving about in a vague and aimless fashion, and only dimly aware of his or her whereabouts. While still able to recognize his relatives, he may misidentify less familiar figures like the doctor, and even on the briefest mental examination he will show obvious defects of memory and other intellectual functions. However, some patients with senile mental deterioration make a bright and alert impression superficially, and look deceptively healthy and younger than their years. But even brief contact will reveal behind a preserved ability to utilize a few conversational gambits a mind as empty as a shell. Inquiries into memory of recent, and sometimes even remote, events of a personal or more general nature tend to be evaded by proffering various excuses, or there may be a tendency to fill memory gaps with accounts of imaginary events.

Emergencies in Chronic Senile Confusion

These persistent states of mental confusion, which are usually due to global senile degeneration of brain cells or to ischaemic softening of large areas of the brain, the physical bases respectively of senile and arteriosclerotic dementia, may create acute problems of management in several ways. In addition to intellectual and personality deterioration, some patients may show episodic mental disturbances; mood changes are fairly frequent, but they are usually labile, short lasting, and only rarely culminate in attempts at self-injury. More common are persecutory episodes, delusions of theft, of poisoning, of not being wanted, or of poverty. When called on to deal with such an acute mental disturbance the doctor on arrival will usually find that the episode has blown over, and a hot drink, together with a quickly acting barbiturate such as pentobarbitone sodium, 1½–3 gr. (0.1–0.2 g.), may be all that is required to restore the domestic peace.

There are, however, features other than frequent recurrence of psychotic episodes which may lead not, perhaps, to strictly medical emergencies but to equally urgent social ones: wandering away, incontinence, hoarding and collecting rubbish, constant restlessness, and getting up at night, often under the impression that it is time to go to work (many years after retirement)—these are only a few of the aberrations and behaviour disorders which may place an unbearable strain on the patient's friends. Most workers in the geriatric field are agreed, in spite of the publicity given to hard cases, that the overwhelming majority of people continue to look after the mentally and physically

infirm members of the older generation with considerable affection and self-sacrifice. But suddenly they may reach breaking point, and the family doctor is called in and faced with demands for immediate relief of a situation which has become unbearable.

The taking of a full history and the conducting of a thorough physical and mental examination of the patient are not only essential for reaching a sound decision but will also have the effect of calming the family crisis which has led to the emergency call: realizing that considerable trouble has been taken, the relatives may more easily accept the assurance that relief will be procured, but that making suitable arrangements may take a little time.

Psychological Factors

It is important to remember that not all mental disturbances during the senium are due to senile or arteriosclerotic dementia. Depressive illnesses are quite common in old people and respond well to modern forms of psychiatric treatment. Such elderly depressed patients often do not present with tears, guilt, self-reproach, and retardation, but with agitation, panic, perplexity, and persecutory delusions and hallucinations. It may be quite difficult to distinguish the puzzled and aimlessly restless senile dement, who believes himself impoverished or poisoned, from the agitated, bewildered melancholic plagued by imaginary voices. It is equally difficult to exclude the presence of intellectual impairment in mentally ill persons. The doctor is likely to find that the history of the development of these disturbances contains the most helpful diagnostic pointers.

In senile psychotic states there will always have been a prodromal period of some months or years during which failure of memory, of general abilities, and of personal adjustment has been noticed, though leading questions may have to be put to the informants to elicit the state of affairs. Positive evidence to show that until a few weeks or months ago the patient had been well preserved in his mind, fully capable in his sphere of activity, and retaining a good grasp on what was going on around him points to a sudden mental reaction which is only occasionally associated with important physical changes in the brain. If the practitioner suspects that he is not just dealing with an acute disturbed episode in the course of senile deterioration, he should advise psychiatric consultation, and, if a fairly hopeful prognosis is given after it, persuade the family to accept mental hospital treatment for the patient.

Physical Factors

Assessment of the physical state may yield important pointers towards correct management. While the routine treatment of senile deterioration with vitamins has, on the whole, been disappointing, from time to time patients show clear evidence of hypovitaminosis in the form of angular stomatitis, undue tendency to bruising, or dermatitis of exposed skin surfaces (not to be confused with skin pigmentations so often seen in old people).

Neurological examination may produce evidence of the same intracranial disorders as may be associated with mental symptoms in younger people—for example, tumours or general paralysis of the insane, by no means so very unusual in people over 60. A more frequent cause of abnormal neurological finding is cerebral thrombosis, and if there is a history of a recent stroke or "strokelets" there is always a fair chance of an early remission of

any concomitant mental symptoms. Abnormal neurological signs in the extremities, especially reflex abnormalities, and absence of vibration sense in the lower limbs as well as the presence of paraesthesiae are common in elderly people, but, by failing to arrange for full blood examinations, many cases of subacute combined degeneration with varying degrees of macrocytic anaemia are probably overlooked in this age group.

In a recent personal case simultaneous restoration of the blood picture and remission of the mental symptoms, which were quite non-specific, were achieved only when daily injections of 100 μ g. of vitamin B₁₂ were given. A suspected case should be referred to a geriatric or medical specialist for diagnostic and initial treatment. If in the presence of any of these physical disorders, or marked cardiac failure or respiratory infection, the services of a trained nurse cannot be made available, determined efforts should be made to obtain the patient's admission to hospital or nursing-home, with a physical diagnosis. Nocturnal restlessness, hallucinations, or persecutory preoccupations tend to disappear very quickly with suitable treatment of physically ill, and often neglected, old people; admission of such cases to a mental observation ward or directly into a mental hospital should be avoided.

Social Factors and Management in the Home

In a large proportion of cases neither the physical nor the mental condition of the elderly person may demand or justify admission to a hospital, and yet a situation is often found where family care appears to have broken down. There is no doubt that, except in the last stages of dementia, patients are happiest in their own homes, and removal from familiar landmarks by admission to hospital or institution is a well-known cause of acute confusional episodes. Many people are quite unaware of the existence in their locality of home nursing services, sitters-in, and laundering arrangements, and the use of these facilities may often enable families to go on looking after their aged invalids with restored morale. The family doctor should be familiar with the services for old people available in his area through contact with the medical officer of health, the local old people's welfare committee, and similar voluntary bodies; he may also find at his disposal a domiciliary geriatric consultant service.

Nocturnal confusional episodes may sometimes be avoided by a dimmed light in the bedroom. For mild behaviour disorders and nocturnal restlessness a variety of drugs have been recommended and may be given a trial. It has recently been claimed that an elixir containing leptazol and nicotinic acid might make it possible for many deteriorated and mildly disturbed old people to continue life with their families. The formula is as follows: Leptazol, 0.2 g. (a dose which is likely to evoke protests from the dispenser); nicotinic acid, 100 mg.; elixir pepsin (*B.P.C.*), 1 fl. dr. (3.5 ml.), three times a day. Personal experience with this mixture has so far proved inconclusive. The use of chlorpromazine has been reported as disappointing in three cases of senile psychosis. Caffeine citrate, 5 gr. (0.32 g.), or a cup of strong coffee or tea at night has sometimes been helpful. Claims have recently been advanced for the efficacy and low toxicity of methylpentynol in the treatment of nocturnal restlessness in senile patients. It may be administered in capsule form or as a draught. May and Ebaugh suggest an initial dose of 0.5–1 g., which, if ineffective, may be increased by 0.25 g. every other night. They did not find it necessary to increase the dose beyond 1.75 g. in any mental hospital senile psychotic over 70.

In many instances the material circumstances of the home will make continued family care impossible, or the doctor may find that there is a definite threat to the health of the person carrying the burden. In cases of this kind the practitioner should be able to advise on suitable homes which are to be found in most areas: a uniformly high standard of care would no doubt be encouraged if doctors were to recommend only homes which they had inspected personally.

Unfortunately, in many localities it will be found that, in view of inadequate general hospital facilities for infirm and confused elderly patients, admission to a mental hospital may be the only way of obtaining adequate care.

Acute Senile Confusional States

While emergencies due to the type of senile confusion so far discussed are largely avoidable by attending early to the patient's physical, psychological, or social situation, actual or impending, acute senile confusional states may arise quite unexpectedly. Although brief confusional episodes, especially at night, are common in old people, what now must be considered are severe delirious states which may continue for several days or even weeks. The prognosis is grave, the condition being terminated by death in about half the cases. Every practitioner will be familiar with these delirious pictures: a restless, frightened patient, muttering, aimlessly groping, bewildered, disorientated, and often responding to vivid visual hallucinations. A considerable proportion of patients who survive the delirious state return to good mental health and may not develop any senile mental deterioration in the next few years. Thus the successful treatment of an acute senile confusional state may be followed by the same gratifying results as skilled medical or surgical treatment of physical emergencies in old age. As with them, treatment must begin at once, and high-quality nursing is required. The task of the family doctor is twofold: (1) to support the patient during the first and most important few hours; and (2) to obtain speedy admission to a suitable hospital.

First and foremost the general practitioner will have to convince himself and the admitting medical officer that he is really dealing with an acute delirious reaction and not with the terminal delirium of a mentally deteriorated or physically cachectic patient. This may be a very difficult matter, unless from personal knowledge or a reliable history it seems quite clear that until a day or two before the sudden manifestation of mental confusion the patient had been well adjusted and with good memory and grasp of his surroundings. Where there is any doubt of the reliability of the informants, a full description of the patient's activities a day or two earlier should yield the true picture of his recent psychological status.

But the doctor may be called to see severely confused lonely old people with hardly any history available; under these circumstances he will have to rely on an interpretation of the clinical state along the lines suggested in the valuable chapter on mental diseases of the aged in Mayer-Gross, Slater, and Roth's *Clinical Psychiatry*. Patients who have been mentally well until quite recently will usually have a well-preserved and well-cared-for appearance; in a truly acute delirious episode there will occur from time to time lucid intervals due to fluctuations in the state of awareness, and during these moments of mental clarity the patient will show little or no memory disturbance except perhaps for very recent matters. During an acute disturbed episode in the course of a long-standing dementia old people will not show any lucid intervals, and will be evasive and vague in their replies to questions referring to memory or orientation. By contrast, the recently confused patient will give positive answers but will remain quite unaware of the fact that his statements are inconsistent and contradictory. Delirious pictures may also be seen in patients with rapidly developing severe depressive and agitated psychoses demanding speedy transfer to psychiatric care; the history will usually yield some evidence of prodromal affective change, and fragments of the patient's thought content pointing to a primary mood disturbance may be obtainable.

In many instances patients recover from acute senile confusional states without any adequate physical cause ever having been discovered, but in most cases there is evidence of important precipitating physical factors. These may be obvious in spite of the difficulties of examining a severely disturbed and restless patient. There may be neurological signs pointing to cerebral incidents or neoplastic deposits,

or signs of severe cardio-respiratory failure. But it is well known that severe confusional states may be facilitated in elderly people by mild infective conditions such as those of the urinary tract, small areas of pneumonic consolidation, or thrombophlebitic patches in the legs. The possibility of a drug intoxication should always be remembered.

Management of Acute Confusional States

After ordering the appropriate initial treatment for any physical disorder present, adequate and speedy sedation should be aimed at in order to conserve the patient's strength. If the condition is not very severe, rapidly acting barbiturates may be given a trial; pentobarbitone sodium, 1½–3 gr. (0.1–0.2 g.), or quinalbarbitone sodium, up to 3 gr. (0.2 g.), are recommended. But inadequate repeated sedatives are often harmful by producing additional befuddlement, and as an initial hypnotic paraldehyde is to be preferred. Administration by mouth should be attempted at first with haustus paraldehydi *N.F.* in doses of 1½–3 fl. oz. (43–85 ml.). Only when the patient refuses the draught should intramuscular injection be resorted to, and for this injectio paraldehydi *N.F.* in a dose of 5–10 ml. is indicated. It is claimed by workers with extensive experience that abscesses are only very rarely produced if the injections are given deeply and into the vastus lateralis rather than into the gluteal region. With the patient sedated, a second physical examination may reveal the presence of disease which went undiscovered a few hours earlier, and this will lead to renewed efforts at securing the patient's admission to the medical or surgical wards of a general or geriatric hospital.

On the other hand, a regime of sedation may render the admission of patients with terminal confusional states to mental hospital or observation wards unnecessary. When admission to hospital is delayed, the practitioner, as well as treating any physical disease present, may consider giving intravenous glucose injections. It has been claimed that with this treatment, the rationale of which is not at all clear, a much higher recovery rate is achieved in the toxic delirious reactions of old age than with a regime of sedation. Infusions of 10% glucose in normal saline for the first few days, and later in sterile water, are recommended. One to two litres should be given daily during the first few days, later only 500 ml. a day, and the rate should never be more than 50 drops a minute.

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Refresher Course Book.—Copies of the second volume of collected articles from the Refresher Course for General Practitioners are still available at 25s. (postage 1s.) each. The first volume is now sold out.

Clinical Pathology Book.—“Clinical Pathology in General Practice,” a collection of 39 articles on clinical pathology that appeared in the *Journal* as part of the Refresher Course for General Practitioners, is now available, price 21s. (postage 9d.).

Both these volumes are obtainable from the Publishing Manager, B.M.A. House, Tavistock Square, London, W.C.1, or through any bookseller.

The Victoria Cross awarded to Assistant Surgeon Thomas Egerton Hale, which was recently sold at Christie's for the record price of £420, was the first V.C. ever awarded to a member of the medical profession. The deed which earned it was performed on September 8, 1855; it was gazetted on May 5, 1857, being a retrospective award, as the V.C. was not instituted until January, 1856. Surgeon James Mouat was later awarded the V.C. for a deed performed on October 26, 1854 (see *Journal*, 1954, 2, 1045).

SOCIOLOGICAL IMPLICATIONS OF DIABETES*

BY

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Had I been asked ten years ago, “What are the sociological problems of diabetes?” I would have replied vaguely, “I do not know; are there any?” It was not until I worked with a group of diabetics in a clinic that my attention was drawn to some of their personal conditions, and the lack of means to redress their wrongs, which awoke in me a sense of their necessity and a need for a different approach.

This paper does not set out to be a complete survey of the sociology of diabetes—this was done admirably by Professor Tunbridge (1953) in his Banting Memorial Lecture at Leeds—but the substance of my personal experience. One of my earliest social problems is described in the following case record.

A Problem Case

Jane had become diabetic at the age of 13, in 1942. She lived in a very poor district and had no stability at home. She was labile and readily passed into ketosis and coma. An added misfortune was that she suffered continual dermal reactions to insulin, and as she was not very clean these lumps often became abscesses, which increased her insulin requirements. She did not like coming to the clinic: she thought our standards were too high.

In 1948 Jane was admitted to hospital with a pleural effusion which was concurrent with an early pregnancy, so she took her own discharge and got married. At about the 38th week of pregnancy she was admitted to another hospital in toxæmia. Induction of labour was performed by rupture of the membranes, and after a difficult forceps delivery the child, a boy, lived, and so far as I know is still alive. Jane, however, was transferred to the Isolation Hospital on account of septicaemia and rapidly spreading bilateral pulmonary tuberculosis. She required over 100 units of insulin a day and was treated with penicillin and streptomycin. I did not enjoy my weekly visit to her: she was ungrateful, discourteous, and uncooperative. In October, 1949, pneumoperitoneum and phrenic crush were performed, and in May, 1950, a tuberculomatous type of healing was seen on x-ray examination. Her general condition was now good; her insulin requirements were lower and she was taking a diet of over 2,500 calories. In October she discharged herself and did not attend the diabetic clinic as arranged. She began to go downhill. A year went by, with readmissions and self-discharge against advice. The pneumoperitoneum was discontinued. She lost weight, but, as often happens in these cases of deterioration, her insulin requirements diminished and she died at home in 1952 at the age of 23.

This case shows all the worst aspects of the problem. A bad home environment, with dirt and squalor, and no moral standards. The patient did not speak the truth and her language was abusive. She had no intellect with which to reason. Diabetes began during adolescence; pregnancy occurred at the age of 19 and coincided with a primary tuberculous infection. Matters were made worse by puerperal sepsis, and in spite of a remarkable initial recovery the course was fatal owing to her lack of co-operation.

Another Side to the Picture

As a contrast there is the small group of private patients, of whom the majority are men. Many of these are Freemasons, and are business or professional men filling every moment of their lives. They are middle-aged and have heavy responsibilities. They are intelligent, have good homes and families, and have a high moral code. They are good patients and mostly keep in good health; but the

*Based on a paper read at a meeting of the East Midlands Branch of the Medical Women's Federation on October 31, 1954.