DISEASE AND PROGNOSIS IN OLD AGE

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When we come to consider disease in old age, one of the first problems which presents itself is that of precise nomenclature. Such provisional labels as "Debility," "Myocardial degeneration," "Asthenia," and "Senile decay" are only vague clinical concepts without an exact pathological basis. Many of the cases under these headings eventually crystallise out into clearer shapes, but some remain unsolved mysteries. This should be borne in mind when considering the headings which occur later in this paper.

In a series of 2,472 Chelsea pensioners, all over sixty years of age, who were admitted to the infirmary of the Royal Hospital, Chelsea, between 1923 and 1930, the commonest provisional diagnosis on admission was "Old age and debility." Next came bronchitis, "influenza," and myocardial degeneration, in that order. After these were digestive disorders of various kinds, rheumatic disease, and lesions of the central nervous system, while the pneumonias, cancer, and genito-urinary troubles were less common than expected.

TABLE I.

Provisional diagnosis.

Old age and debility	..	..	..	..	14.2 %
Bronchitis	..	..	..	..	12.1 %
Influenza	..	..	..	..	11.3 %
Myocardial degeneration	..	..	..	..	11.1 %
Digestive disorders (except cancer)	..	..	..	..	9.9 %
Rheumatic disease	..	..	..	..	7.1 %
C.N.S. lesions	..	..	..	..	4.7 %
Other cardio-vascular disease	..	..	..	..	3.5 %
Pneumonias	..	..	..	..	3.4 %
Cancer	..	..	..	..	3.3 %
Genito-urinary	..	..	..	..	3.2 %
Other diseases	..	..	..	..	16.2 %

100.0 = 2,472 admissions.

The final diagnosis, of course, was not the same in many cases since the ultimate cause of death was more often cerebral haemorrhage, cardiac failure, broncho-pneumonia, or cancer. In fact, many of the patients originally labelled debility were eventually found to have a neoplasm, or to be suffering from some form of cardio-vascular inefficiency. It is noteworthy that such conditions as peptic ulcer, phthisis, and angina pectoris are only rarely met with in Chelsea pensioners, although quite common in younger patients.

When we come to the question of prognosis in the senile, it may be stated that infections are, on the whole, and apart from pneumonia or broncho-pneumonia, less grave than in young persons. Influenza is certainly the cause of only a few deaths, even in the great pandemics of 1918 and 1919. Cancer is also a less serious matter than in middle age, as many inoperable carcinomata of the gut and mouth—commonest sites in the old—still allow patients a year or two of only slight discomfort before their inevitable termination. Pneumonia is to be feared for its effect upon the heart. Many cases recover from the acute phase to die in subsequent cardiac failure. In practice this means that sulphapyridine must be given early for successful results. Since signs in the lungs of old persons are often hard to detect on clinical examination, bronchitis with pyrexia, but without signs of consolidation, is the sign for specific therapy. Large doses at first also seem to lessen the liability to cardiac toxæmia and later failure. As regards other forms of cardiac failure, senile patients usually recover from a first attack if treated promptly. Few, however, get over a second attack completely, while a third is almost inevitably fatal. This seems true of coronary thrombosis as well as of congestive failure from any cause.

All digestive complaints should be regarded with suspicion. Some turn out to be neoplastic in pathology, while others end in a dramatic vascular accident of arteriosclerotic origin.

Fibrositis has quite a good chance of recovery if adequately treated, and most forms of arthritis can be improved by physio-therapy in old age. Trauma also is less serious in old people when well treated than might be expected. Fractures sometimes fail to unite, but the usual fractured femoral neck does very well when fixed with a pin soon after the accident. Modern methods have quite altered the outlook in this formerly dreaded calamity. Operative procedures can be undertaken without too much fear in the aged, who often do better than expected. Local anaesthesia and short duration of operation do much to minimise the risk. Shock, fall of blood pressure, and occurrence of pulmonary irritation or inertia are factors which load the risk heavily.

Generally speaking, old people are not such a poor prognostic bargain as usually considered. As will be seen from Table 2, only 20 per cent of all patients admitted to the infirmary of the Royal Hospital, Chelsea, fail to recover, or, at least, to remain alive.

TABLE 2.

Yearly percentage of deaths.

<i>Year.</i>	<i>Admissions.</i>	<i>Deaths.</i>	<i>Per cent.</i>
1923	305	57	18·6
1924	349	63	18·3
1925	340	69	20·3
1926	386	66	17·1
1927	333	72	21·6
1928	239	57	23·8
1929	370	78	21·0
	<hr/> 2,322	<hr/> 462	<hr/> 19·9

Special prognostic signs.

When considering the prognosis of an individual patient who is elderly, the facts revealed by ordinary clinical examination must be supplemented in certain ways. In addition to the provisional or established diagnosis of disease, the soil in which it is developing must be analysed. This can be done by surveying the general appearance for such pointers as apparent age, muscular tone, state of the arteries, mental activity, and physical bearing.

Certain signs, important in younger persons, are less significant over the age of sixty-five. Such findings as a blood pressure between 160 and 200 mm. systolic, thickened or calcified arteries in arms or legs, tremors, emphysema, the presence of a few moist sounds in the lungs, and even cyanosis, may be treated as relatively unimportant by themselves. Marked arteriosclerosis grows commoner with advancing years, and a raised systolic pressure seems to be necessary to prevent ischaemia of vital structures. It is those patients with little vitality, who just manage to crawl about, that have a low blood pressure, and who show little resistance to infection or the results of trauma. The same is true of the regular chronic bronchitic. Those whose systolic pressure is below 130 mm. are more liable to go into cardiac failure and to die in spite of every treatment than the patient whose usual figures are 160/90.

When possible, it is preferable to watch patients at their ordinary routine of life rather than on special consultations or ward rounds. Such things as their mental reactions, amount of customary physical exertion, appetite, gait, posture when sitting, standing or lying, all give some indication of condition. The habitual facial expression in relaxation, temperamental reactions to their surroundings, and habits of sleep all act as pointers to the state of the patient.

The muscular tone present, both during exertion and at rest, should be observed. When a patient ceases to walk and begins to shuffle, or when he stops sitting upright and starts to sag and to slip down in his bed; these are indications of increased feebleness. A series of minor complaints in a patient who is normally quite cheerful sometimes herald a dramatic worsening of his condition, such as a cerebral thrombosis. It should always be taken as a signal for thorough re-examination and increased alertness. The hollowed cheeks, sunken eyes and greyish look of the dying patient are well known, but lesser grades of these and similar changes

can be found if sought for assiduously; they will often act as warning before grosser physical signs are found. Reports that a patient with a high blood pressure and marked arteriosclerosis is getting in and out of bed at night without any reason, usually indicates a terminal fall in blood pressure. This is followed by restlessness, coma, and death within days or weeks at the longest.

In general, diminution of tone is the earliest sign of a turn for the worse in an elderly patient. This may be shown by the bodily musculature, as described above, or by the voice, by the myocardium in the form of a falling blood pressure, and as incontinence of faeces, urine, or both. Mental changes may precede or accompany the bodily ones, but in the aged it is hard to tell which alterations of mind are significant and which are not. The important decision is not where the patient is standing in his course of life, but in which direction he is going and at what speed. Finally, it is important to remember that the aged have only managed to survive by reason of the tenacious hold they keep on life. Time and again will they surprise everyone by their powers of recovery, so that a little optimism in prognosis is often justifiable. In any case, it will do more good than harm to all concerned.

BOOK REVIEWS

ADVICE TO THE EXPECTANT MOTHER ON THE CARE OF HER HEALTH AND THAT OF HER CHILD. 6th edn.

By F. J. BROWNE, E. & S. Livingstone, Edinburgh.
1942. Price 6d.

This little booklet by Professor F. J. Browne, which has reached its Sixth Edition reveals the increasing demand from the prospective mother for accurate scientific information about the Greatest Event in Family Life, and it certainly goes a long way to supply that want. It is a handy size, well indexed and carefully divided into easily read sections, so that even women who have little inclination for reading will find it invaluable to them.

A new chapter has been added which gives a short explanation of Pregnancy and the mechanism of Labour including ante-natal instruction in the art of relaxation which until recently has been so neglected by our Obstetricians and Midwives Training Schools. Professor Browne stresses the necessity for practising this art of relaxation during the first stage of labour, to allow for full dilatation of the cervix, and he shows the mother how the character of the pains alters when the second stage of labour is reached, and pushing then becomes involuntary. Midwives as well as mothers would do well to absorb the clear instructions given in this chapter, which if carried out intelligently would shorten and ease the average labour considerably.

A revised list of war-time baby clothing is included which will help the mother-to-be in her choice of suitable clothes for summer or winter wear, together with the number of coupons required. Are petticoats still worn by babies at 2 coupons each? If so the exigencies of war might be an opportunity to discard an already redundant garment permanently.

Professor Browne is to be congratulated on maintaining the high standard he set himself in previous editions, and doctors and nurses need have no hesitation in recommending this excellent booklet to their patients.

REGIONAL ANALGESIA FOR INTRA-ABDOMINAL SURGERY

By NORMAN R. JAMES, J. & A. Churchill, Ltd.,
London. 1943. With 27 illustrations. Price 6s.

In the Foreword of this excellent little book Dr. I. W. MacGill suggests that regional analgesia has not gained as much as it should in popularity because of the high standard which has been attained by specialist anaesthetists using general anaesthesia. At first blush, the technique which has been so well described by Dr. James will cause some fluttering of the heart of the non-specialist anaesthetist. But, on reading the matter for a second time, it appears that the surgical operation necessary for producing a regional anaesthesia is not so terrifying as it seems. The technique which Dr. James has evolved is really very simple and straightforward, and, provided that it is realised by all concerned that the anaesthetist does need some time to prepare the case for an operation, the use of this form of anaesthesia should be directly popularised because of this work.

Furthermore, it is not often realised that once anaesthesia has been produced the anaesthetist is able to start, if need be, on the next case, or to help the surgeon out of some of his particular troubles. Operating upon a patient anaesthetised by this method must improve the technique of the surgeon, and this by itself is sufficient justification of its use in many cases.

Dr. James has taken great care in describing all the steps necessary for using this manner of anaesthesia, and his description is considerably helped by 27 well-chosen illustrations. Some of the photographs are very good indeed, although in some cases an over-emphasised background detracts from a full appreciation of technical steps shown. It is perhaps unfortunate that the excellence of the descriptions has been slightly marred by careless proof-reading. But these are minor faults. In the main, this little book fills a gap in the literature of anaesthesia. We confidently recommend that all those who are liable to be called upon to give anaesthetics to dangerously ill persons should read, mark, learn, and inwardly digest the contents of this volume.