

Six by F. L. Golla, M.D., F.R.C.P. On Thursdays, at 2.30 p.m., commencing May 6, 1926, at the Hospital for Paralysis and Epilepsy, Maida Vale.

Fees: For whole of Part II, £10 10s.; for a single series of Lectures, £2 2s.

Inquiries as to Lectures, etc., should be addressed to "The Director of the Pathological Laboratory," Maudsley Hospital, Denmark Hill, London, S.E. 5.

In addition to the special lectures and demonstrations of the above course, there is opportunity for clinical experience and instruction available at the Hospital. In particular there are a limited number of appointments available as clinical assistants; service in this capacity (either whole time or part time) is recognized by the various examining bodies as constituting the clinical experience required by the regulations for the Diploma.

University of London, Imperial Institute Road, South Kensington, S.W. 7.—A course of lectures on Mental Deficiency for medical practitioners, supplemented by a course of Clinical Instruction, has been arranged by the University Extension Board in co-operation with the Central Association for Mental Welfare commencing May 31 to June 5, 1926.

It is intended for qualified Medical Practitioners and more especially for those who are engaged as certifying officers to local authorities under the Mental Deficiency Act, 1913, as School Medical Officers or as medical officers of institutions, or who are otherwise definitely concerned with defectives. The course will be based on the requirements of the syllabus for the University of London Diploma in Psychological Medicine. The University will grant a certificate of attendance to those who have attended the whole course regularly, taking both theoretical and practical work—

(1) Mental Deficiency. Seven lectures by A. F. Tredgold, Esq., M.D., M.R.C.P., F.R.S.E.

(2) Administrative Procedure in the Ascertainment and Treatment of the Mentally Defective. Three lectures by F. C. Shrubsall, Esq., M.A., M.D., F.R.C.P.

(3) The Psychology of Mental Defectives. Two lectures by Prof. Cyril Burt, M.A., D.Sc.

(4) Crime and Mental Defect. Lecture by W. Norwood East, Esq., M.D.

Clinical Work: The clinical work will consist of visits to special schools for mentally defective children and to residential institutions in or near London, and demonstrations by well-known experts to small groups of students of individual cases of defect.

Fees and Applications: Registration Fee, 10s. 6d.; Fee for the course, £2 12s. 6d.

Cheques should be made payable to Miss Evelyn Fox, C.A.M.W., and crossed Barclay's Bank, Ltd. All communications with regard to the course should be addressed to Miss Evelyn Fox, c/o University Extension Department, University of London, South Kensington, S.W. 7.

OBSERVATIONS ON A MENTAL HOSPITAL DEATH-RATE.⁽¹⁾

By W. GORDON MASEFIELD, M.R.C.S., L.R.C.P., D.P.M., Medical Superintendent, Essex County Mental Hospital, Brentwood.

[Abstract.]

IN order to find out the exact position regarding the death-rate at this Hospital (Essex County Mental Hospital, Severalls), I have taken the five-year period 1920-1924 inclusive, and have endeavoured to pick out some points of general interest.

The points involved are heating and lighting, nursing staff and diet, and the greatest of these is diet! During the war years the evil results of inadequate diet, overcrowded and insufficiently heated wards and an insufficient and untrained staff were shown in glaring fashion, and the death-rate figures soared.

⁽¹⁾ A paper read at the Spring Meeting of the South-Eastern Division, April 30, 1925, at which time the author was on the Medical Staff of Severalls Mental Hospital, Colchester.

Owing to these entirely abnormal conditions it is useless to take the figures of these years. The period 1920-1924 is, however, one of normal conditions, and the figures make satisfactory reading.

For all the county and borough mental hospitals of England and Wales, the average percentage death-rate figures are: 1920, 8.74; 1921, 8.37; 1922, 8.99; 1923, 7.71; 1924, not yet available; and for this hospital: 1920, 7.2; 1921, 6.4; 1922, 7.9; 1923, 7.7; 1924, 5.87.

During the same period our average daily number of patients has gradually risen from 1,430 in 1920 to 1,618 last year.

The total number of deaths during the period under review is 525, and in 82% of these cases a *post-mortem* examination was made, so that the certified causes of death should be true findings without the element of guess-work which unfortunately vitiates the figures of alleged causes of death among the general public.

A somewhat remarkable fact is that the average age at death on the female side is 57.43 years, and on the male side 57.42. No less than 29% of the total deaths have been of persons 70 years of age or over, and 53% were over 65.

Leaving out senility or senile decay, the more common causes of death were: Tuberculosis, 10% of total deaths; cardiac disease, 9%; general paralysis, 8%; epilepsy, 4%; cancer, 3%; exhaustion of acute mental disorder, 4%; influenza, 3%.

It is regrettable to find that tuberculosis heads this list, for this disease is classed as a "preventable" disease. At this hospital we have each year an average of 11 deaths from this cause—phthisis largely predominating—and of these exactly one-half have been of cases of dementia præcox of katatonic form. As is well known, the stock from which these cases arise is poor, and their resistance is exceedingly small. Definite phthisical heredity is common, but is by no means so evident as a psycho-neurotic or psychotic heredity. In fact, the parents of these katatonic cases make a most interesting study—the maternal taint appearing to be the most common.

I do not think it can be denied that this form of mental disorder—when stupor or prolonged excitement is a marked symptom—has a definitely bad prognosis as regards life. Despite the best hygienic conditions and despite the most careful and conscientious nursing, signs of pulmonary tuberculosis show themselves, and once established, the disease finds them an easy prey. The well-known factor of shallow breathing involving deficient suction action of the thorax, and hence a sluggish return circulation, of course aids the tubercle bacillus in its ravages. If we consider the other main groups of Kraepelin's dementia præcox, we do not find the same marked tendency to fall victims of tuberculosis, and it appears to be worth consideration whether this difference in prognosis should not receive more definite recognition.

In a series of 15 such female cases, dying either of pulmonary tuberculosis or exhaustion, the small size of the heart has been most noticeable. The organ has appeared macroscopically to be healthy as regards the musculature and without valvular disease, but in a more or less "infantile" state, the average weight being only 6 oz. The average age at death of this series of cases was 31. May this not be another piece of evidence that the disease should be reckoned among the abiotrophic diseases? I think that the time may come when the Registrar-General may pass without comment as a cause of death "katatonic dementia præcox," just as readily as he already does the far less common abiotrophic diseases such as Friedrich's ataxy, or amaurotic family idiocy.

For the period of five years, deaths from general paralysis account for 16% of the total male deaths and for 2% of the total female deaths. The average age at death of the male general paralytic was 43—the youngest being 25, and the oldest 61. More than half these cases lived less than a year in hospital—but in the series are 2 cases whose hospital lives were prolonged for 6 and 9 years respectively. During the year 1924 induced malaria treatment was adopted for all possible cases. Some observers have put forward, recently, the theory that the type of the more recent cases of general paralysis shows a change, *i.e.*, that they tend to run a more protracted course than was the case a few years ago, with more frequent remissions, and thus they account for the reported improvement following therapeutic malaria. It is not easy to see the reasons for such a change of type, though doubtless the arsenical treatment of the original syphilitic infection will be considered responsible. From our experience of the induced malaria treatment

at this hospital, we believe it to be a perfectly safe form of treatment, and that it appears to prolong life—therefore, obviously, it should be given a very thorough trial. The numbers treated are, however, small, and it is too early to draw any more definite conclusions, but of our treated cases two men have returned to business life, and one lady is now engaged in learning to drive a motor car!

In any consideration of a mental hospital death-rate the most striking fact is the large number of deaths at an advanced age. It is necessary to emphasize this, because it brings into prominence the undoubted fact that a very considerable portion of the time and energies of the staff is expended in caring for senile patients.

During the past five years 15% of the total male deaths have been of cases which have died within one month of admission, and the figure on the female side is 10%, and half these cases have died of senile decay. Many of them have been brought many miles, and have been much exhausted by the journey; some have arrived in a moribund condition. A mental hospital must of necessity always have a considerable number of senile cases amongst its population, but it does not appear necessary to consider it the natural home of the aged poor.

As regards the 9% of the total deaths which are due to heart disease, there is little that calls for comment. Fifteen% of the total deaths in the general community (above 15 years of age) are certified as being due to this cause. Obviously, the less frequent *post-mortem* confirmation of the diagnosis may account for this difference. Serious valvular heart disease is uncommon among mental patients, myocardial degeneration being far more often found. As a terminal condition in this latter form, during the period under review, there have been two instances of the rupture of the ventricular wall. In one case, a man of 67, there was a rent 2 in. long in the left ventricle, and in the other case, an old lady of 77, the tear was in the right ventricle. In a third case, an epileptic, aged 54, died during a fit, and *post mortem* was found to have a tear in his aorta immediately above the anterior coronary artery. He had, of course, very pronounced atheroma. Such sudden occurrences are probably more common than is generally supposed.

Epilepsy as a primary cause accounts for 4% of the deaths, and there is no question that it shortens life. There are not a large number of elderly epileptics seen in a mental hospital. The average age at death of the epileptic here is only 36—sudden death is common, and *post-mortem* findings rare.

Dysentery and colitis, so long dreaded words in mental hospital work, have almost lost their terrors. In the five years, 4 deaths have been recorded as due to these causes, but there has been no epidemic. There are, however, among our patients a number who have suffered from this disease—mostly during the war period—and it may well be that the *Flexner bacillus* is still in our midst. How comes it that it does not raise its head? I suggest that the following are the necessary factors in the elimination of dysentery from the hospital records: (1) A sufficient diet with plentiful "extras" to every debilitated patient; (2) careful treatment and handling of all soiled linen; (3) unstinted use of soap and water, especially on side-room floors in the acute wards; and possibly (4) the very sparing use of that untrustworthy drug—sulphonal.

I believe very strongly that sulphonal has a great effect in debilitating patients, and so rendering them most vulnerable to disease-bearing organisms. In most cases it brings this about in a most insidious way, and chiefly by ruining the appetite and digestion. Sedative drugs are prescribed freely when thought necessary at this hospital, but the use of sulphonal is restricted to a very few cases. In addition to lowering the general physical health of a patient, this drug, when prescribed for a prolonged period, undoubtedly tends to lower a patient's self-esteem, causing him to become degraded in his ways and careless of ordinary decency.

Deaths from other forms of infectious disease include 3 of the enteric group and 16 from influenza. The deaths from influenza almost all occurred owing to an epidemic in the early months of 1922, in which broncho-pneumonia was a common and severe complication. On the whole, however, the incidence of influenza has been more noticeable among members of the nursing staff than among the patients.

It appears probable that living for the most part in warm but airy wards without any sharp variation in temperature is a protective influence. This also applies to the noticeable rarity of cases of acute bronchitis considering the number of vulnerable elderly individuals.

Turning now to the group of cases dying within a month after direct admission (and putting aside the senile cases), we find an interesting series of cases of acute confusion or delirium with definite physical disease. Such toxic cases include lobar pneumonia, influenza, nephritis, pulmonary abscess, pyosalpinx, acute Graves disease, and peritonitis following perforated gastric ulcer. Several of these cases were admitted in a moribund state, and the lives of some might have been saved had an early diagnosis of the underlying condition been possible.

In the *Tenth Annual Report of the Board of Control* it is pointed out that deaths from cancer in mental hospitals are much less frequent proportionately than in the community at large. Cancer causes 12% of the total adult deaths in England and Wales, but only 3% of these in the county and borough mental hospitals, and this (3%) is the figure at this hospital. This, to my mind, is a most interesting fact, and the difference is so great that it cannot arise by chance. Our knowledge of the ætiology of malignant disease is as yet so indefinite that we can merely conjecture. The majority of mental patients are of the so-called cancer age—45 to 50—the average age of our direct admissions here is exactly 45, and yet the incidence of the disease is very small. If we accept the view that malignant disease is preceded by some chronic irritative process, it appears possible why mental patients are to some extent immune. The most common sites for the disease are, in the female sex, cervix uteri and breast, in the male sex, tongue and lip, and in both sexes, œsophagus, stomach, colon and rectum. It is plain that residents in a mental hospital have little chance of being the victims of a recent erosion of the cervix—the forerunner of carcinoma—and the women that are admitted as mental patients between the ages of 40 and 50 are not the happily married mothers, but, as a rule, the disappointed spinsters. As cancer of the breast equally affects women who have borne children and nulliparæ, it is not surprising to find that this is by far the most common form met with among women in a mental hospital, but the death-rate can be kept very low by early diagnosis and up-to-date surgery.

As regards epithelioma of the tongue and lip, of which excessive smoking is universally considered to be the exciting cause, it is easy to see that this factor is to all intents and purposes ruled out under mental hospital conditions, and therefore this form does not arise among mental patients. The sources of irritation which contribute to carcinoma of the alimentary tract may be considered to be food and drink swallowed too hot, highly seasoned articles of food, possibly excessive meat-eating, and habitual constipation. Under mental hospital régime patients have wholesome plain food, seldom, I should say, served too hot, and routine aperient medicine by preventing chronic constipation may be said to minimize the irritation of colon and rectum. This beneficent dose, whether in the form of pill, powder or fluid, should also receive due credit for that remarkable absence of intra-peritoneal conflict among mental patients.

OBITUARY.

WILLIAM CHARLES SULLIVAN, M.D.,

Medical Superintendent, State Criminal Lunatic Asylum, Broadmoor.

The State has lost a highly valued and distinguished officer by the death of Dr. William Charles Sullivan on February 26 in his fifty-eighth year. Even those of his friends who were aware that he was in indifferent health were quite unprepared for the news of his death. They anticipated that his condition would improve, and hoped that he would be able to carry out those projects for the future he had in mind. The youngest son of William Kirby Sullivan, Doctor of Philosophy and President of Queen's College, Cork, he was educated at Cork, Dublin and Paris. He was an Exhibitioner and Prizeman of Queen's College, Cork, and graduated M.B., B.Ch., B.A.O. at the Royal University of Ireland in 1891, and received the diploma in Psychological Medicine in 1892, and the Stewart Scholarship in Mental Diseases and the degree of M.D. in 1893. In the following year he continued his studies in the asylums and hospitals of Paris, and attended the School of Anthropology under Prof. L. Manœuvrier. And it may well be that the work he did with the latter first directed his naturally inquiring