DECLINE IN CANCER MORTALITY

Treatment Results Given At B.M.A. Congress

DR. CUMPSTON'S ADDRESS

Radium And Surgical Methods

HOBART, January 16.

That the results of the treatment of cancer were definitely improving, and that there was a decline in cancer mortality, were encouraging points stressed by Dr. J. H. L. Cumpston, Director-General of Health for the Commonwealth, in his paper on the national organisation campaign against cancer given before the Australasian Medical Congress today.

Discussing the magnitude of the problems, he said that Sir Harry Allen, in 1902, had expressed the opinion that most of the increase in cancer was fictitious, being due partly to the change in the age distribution of population, and partly to the change in the better diagnosis and more explicit registration. It was not possible, however, to draw comfort from any such conclusion, said Dr. Cumpston. The death rate from cancer in 1900 was 57 per 100,000 persons; in 1931 it was 105 per 100,000. While the facts assumed by Sir Harry Allen to have been the controlling factors were still operating, that did not explain the increase, which was not fictitious but very real.

Dr. Cumpston said that exposure to certain irritants, when under certain conditions, resulted in cancer. These irritants might be mechanical, physical or chemical. Mechanical irritants were evidenced in cancer of the tongue, following irritation by broken or decayed teeth; physical irritants were exemplified in heat or other exposure to sunlight; chemical irritants were exemplified in tar, soot and arsenic.

Need For Great Care

Exposure to known causative factors should be prevented. This prevention was composite, responsibility resting upon Governments, industrial departments health departments, employers of labor and on the workmen. Already, the measures adopted had been very successful, but still more knowledge was necessary, as well as greater care. This was a field in which legislation, administration, research, and education were all playing a part, and in which more would be done in the prevention of cancer as knowledge increased. Nothing was more important in the campaign against cancer than early and exact diagnosis. There was no indication that further laboratories were necessary, but four advances were urgently needed, namely:—

- Simple and universally adopted nomenclature.
- More exact knowledge of the way in which cancer spread.
- Greater knowledge by the general practitioner of types of cancer and degrees of malignancy.
- Greater knowledge of pre-cancerous tissue changes.

Gaseous Form Of Radium

The use of the gaseous form of radium was growing in favor, for four good reasons:—

1. The patient could leave the hospital at once, so that greater use could be made of the hospital beds.
2. The tubes could be left in the patient without any trouble involved in recovering them.
3. Great economy was achieved, as all available energy from the radium was collected and used. The radium was never idle, and many more patients could be treated.
4. Needles could be bent and be prepared according to the specification of the surgeon.

Seven Years' Results

Dr. Cumpston gave a brief review of the results achieved during the last seven years. A sum of £373,165 had been allotted, he said, for the cancer campaign in the last five years by Commonwealth and State Governments and other State organisations. A total of approximately 12 grammes of radium had been put into use, and cancer clinics had been instituted at 18 large metropolitan hospitals, as well as a number of extra metropolitan hospitals. In the four years since treatment by radium was started on an organised basis, radium had been used in the treatment of approximately 10,000 cases of cancer. The number of cases treated by means of X-ray, or surgery, or by other methods in which radium had no part, was not known.

As to the success achieved, on the one hand, it had to be recorded that the

FITNESS OF THE AUSTRALIAN YOUTH

Doctor's Training And Classification Scheme

CONGRESS PAPERS

HOBART, January 18.

Papers on the selection and supervision of the fit for national and military service; physical defects of school children, emphasising the "excessive" height of present-day youth; the need for scientific enquiry into the economic system; and the relationship of cancer with tuberculosis, were read at the Medical Congress today.

Lieutenant-Colonel T. Garnet Leary, of the Australian Army Medical Corps, said it was the duty of the community to take such steps as would ensure the maintenance of a high percentage of fit people; and in that respect, the medical profession would play its part by the formation of clinics charged with the compulsory periodical examination of school children and the necessary remedial treatment consequent on examination, such treatment to be compulsory. The cessation of universal training, he said, had reflected adversely upon Australian youth, and both from the military and civic aspect, verged upon a national calamity. He suggested that all youths between 12 and 14 be examined and classified at school; all youths from 14 to 16 be trained physically, and at 16 be re-examined; all youths to be continued in training under discipline till 18, then be re-examined and discharged, with the obligation to report again for medical examination at 20 years of age.

"Children Taller And Heavier"

A forecast was made by Dr. James Greig, chief medical inspector of the Education Department of Victoria, in a sectional paper on physical defects of school children that the time was coming when the excessive height of persons would be a serious inconvenience. He said it had been shown in the preparation of the averages of 265,000 children, in two groups, over an interval of 10 years, that the Victorian child, in 1922, was taller and heavier, at every age, than in 1912.

"I think the time is coming," Dr. Greig said, "when excessive height will be a serious inconvenience. Already doorways in trains and trams are too low for many men, and the average bed and ship's berth will be too short. For a long time I have been astonished at the amazing height of our adolescents at the ages of 14, 15, or 16 years; but in recent years it is the height of the 12 and 13 year old girls that is surprising."

Dr. Greig pointed out the freedom from serious diseases compared with their incidence elsewhere, and said that this freedom, coupled with the fact that the children averaged more in height and weight than the average English child, surely gave them the chance of being of the world's best if they could only remedy or remove the many minor defects still existing.

Status Of Hygiene

In his presidential address to the section of public health, Dr. John Dale, health officer of the City of Melbourne, reviewed the status of hygiene which, he said, might be defined as the science of health. He said the profession had a duty to demand that the social system be adjusted to prevent all misery and cruelty which doctors encountered in their work. Even without going deeply into economic problems, doctors could see that the ill health of the masses was not due to any perversity on their part. The majority were not lacking in self respect, and were even anxious to work under reasonable conditions, but work was denied to them owing to so-called overproduction. As humane, educated men of goodwill, they should demand that the economic system be the object of their scientific enquiry.

Cancer And Tuberculosis

In the section of pathology, Dr. Thos. Cherry, who has been working for several years at the University of Melbourne investigating the causation of cancer by means of experiments with mice, read a paper on the new statistical evidence which has become available, and which points to a definite relationship of cancer with tuberculosis. He said that, by taking adults of the ages of 15 to 25, at each of the four census periods, 1841, 1851, 1861, and 1871, in England, the diseases of which these sections of the population ultimately died could be followed in detail. It appeared that in almost the same proportions these persons died of phthisis and cancer combined—in nearly 20,000,000 deaths

MEDICAL CONGRESS PAPERS

Treatment Of The "Handicapped" Child

NATIONAL SERVICES

HOBART, January 17.

Sectional meetings, chiefly of technical interest, occupied the attention of members of the Australasian Medical Congress today. Among them was one by Dr. S. F. McDonald, on "The Handicapped Child." He pointed out that the acute diseases of childhood were diminishing and even surgical accidents seemed less frequent; but the chronic conditions, though they might seldom kill, left their mark on the child in an even more permanent fashion, and too often the child, with a minor physical handicap, became troubled by a grave mental one. Blind persons were notoriously sensitive, and deaf people suspicious. The crippled child might conceive a hatred of the rest of humanity to color his feelings for his family and his political opinions.

Humanity's attitude towards the handicapped child had varied from time to time, said Dr. McDonald. Illtreatment had not been common except among especially warlike people. Handicapped children might be roughly divided into those suffering from physical or mental handicaps. It was easy to understand that the fixed laws of human society were but poorly comprehended by defectively equipped children. They looked with suspicion and mistrust at the opportunities which they saw developing around them and had the tendency to isolate themselves and evade their tasks. They had a peculiarly sharp sense of life's hostility and unconsciously exaggerated it.

Home For Cripples

The solution of the physically handicapped child's problem, he added, was the cripples' home or school, the essential feature of which would be that it was not a hospital. In short, the crippled child, in both work and play, should be given every opportunity to behave as a normal child. The problem of mental defectives was much harder. Of these, only a small percentage could ever be made independent. For most of them, institutional treatment was a necessity. For nearly all of the lower grade defectives institutional treatment was to be preferred; for higher grades it should depend entirely on home conditions. It was now realised that the "bad" child was often merely the child out of tune with its environment and, by adjusting the environment, the "badness" disappeared.

Naval And Military Work

A plea for the organisation of national medical services, to be ready in time of national emergency such as war, was made by Lieutenant-Colonel F. A. Maguire, Deputy Director of Medical Services in New South Wales, in his presidential address to the section of naval and military medicine and surgery.

They had to remember, he said, that there were only 5,500 medical men in Australia. Doctors could not be trained under five or six years and, in the event of heavy casualties, Australia might be hard-pressed to provide proper medical men for her civilian and defence requirements. He suggested that the civilian medical services should be controlled by a national service council, to which would be attached the Controller of Civil Medical Services. The distribution of medical practitioners to the best advantage to see that all defence and civilian requirements were adequate, would call for careful and thorough organisation. If worked out in skeleton form beforehand along the lines suggested and wisely administered by men who knew their job, all the scandals of putting round pegs in square holes of working the willing men to death and of letting the shirker get an unfair advantage, would disappear.

He suggested that the profession should give a lead and urge on the Federal Government the necessity for formulating a workable scheme.

Blind People And Pensions

Dr. Leonard J. C. Mitchell, honorary ophthalmologist of the Melbourne Hospital, in a paper before the ophthalmology section, stressed that the decision as to what constituted a blind person should lie with those who made ophthalmology their special study. The Victorian branch of the B.M.A. in August, 1933, had suggested that the association be asked to confer with the Federal authorities on this matter. It was submitted that useful service to the community would be rendered by any endeavor to bring about uniformity of practice in what had been a particularly difficult aspect of pension administration.

death rate from all forms of cancer had increased from 96 to 105 per 100,000 in the last four years. On the other hand, although sufficient time had not elapsed to enable figures to be given in terms of five year series, the results of treatment were definitely improving, and the mortality statistics for 1931, based on the estimated population in age groups for that year, showed a decline in cancer mortality in all such groups under 65 years of age.

Results Of Radium Treatment

Dr. L. J. Clendinnen, of Melbourne, said it was important that the disease should be treated adequately at the outset. For cancer of the tongue, radium treatment had been somewhat disappointing. There was an immediate response to its treatment with radium, but the growth soon recurred at a nearby site. Surgical operations had not proved satisfactory in the treatment of deeply placed glands affected by the cancer of the tongue, and even radium packs had not been satisfactory. The use of radium had displaced surgical operation in the treatment of lip cancer, because radium was able to deal with the infiltrating border of the growth in a way that was not possible by surgical operation.

In regard to cancer of the breast, Dr. Clendinnen quoted figures of 218 patients treated in Melbourne during the last five years, which showed that, of the patients in the operable and borderline stages treated by operation, 100 per cent. had growths in adjacent areas within six months of the operation. Among the corresponding class treated with radium, the local recurrence rate was 13 per cent. He quoted them in support of the contention that cancer of the breast, incompletely removed, would recur more quickly than if it were treated by radium. Finally, he referred to cancer of the uterus. He pointed out that every patient who had sought relief from the condition had the disease in an advanced stage. He made a plea for the education of the public in the early signs and symptoms of cancer of the uterus in order that patients might apply for treatment while there was some hope of its being successful.

Pathological Aspects

The pathological aspect of the cancer problem was discussed by Dr. J. V. Duhig, of Brisbane, who said that until recently the cancer pathologist did not see much beyond the horizon of fixed tissue histology. Today, no review of the pathology of cancer could be even moderately complete without a survey of the work of the experimental citologist, pathologist, and bio-chemist, and latterly, the physicist. The contribution that the pathologist was called upon to make to the routine investigation of the cancer problem was well recognised as far as the pathology of fixed tissue was concerned. This contribution could not in future contain much that was new, but there would be developments of detail, technique, and interpretation.

It was doubtful, he added, whether histology would ever reveal the cause of cancer; but when cancer was discovered it would be found that pathology of that kind contributed to the success by having all growths coming within its survey referred to their proper relative positions in an orderly scheme. Histology had thrown light on the cancer problem in an indirect way. The great triumphs of recent years had been in the domain of experimental pathology of cancer.

Dr. Duhig made a plea for the more extended use of rapid methods of pathological diagnosis.

Dr. E. H. Molesworth, of the University of Sydney, read a paper on the status of X-ray therapy in the treatment of cancer, and said there was a strong tendency on the part of many persons to regard X-ray treatment and radium treatment as separate entities. In reality, there was exactly the same difference between the two as there was between treatment by radium implanted in the tissues surrounding the growth and that by radium at a distance. Ultimately, only economic considerations would determine whether an X-ray tube, radium at a few centimetres distance, or a radium bomb would be employed for a tumor in any given situation. Anatomical considerations and the necessity for sparing nearby vital organs would always give implanted radium a big and exclusive field.

Dr. F. P. Sandes, of Sydney, said that cancer surgery had become a very definite specialised branch of the healing art, and the time was long past when cancer should be regarded solely as a surgical disease. Cancer treatment was no longer individualistic, but a matter for team work. The surgeon had to cultivate a new outlook in the problem of cancer, not only from research, but also from pathology, as well as from the treatment aspect. The surgeon should be at the head of the team, but he would not be able to occupy this position unless he trained himself to fill it. He should have a wide general scientific education, so that he would be able to determine the relative values of opinions of over enthusiastic operators, radiologists, pathologists, and research workers. In a reference to the work of cancer immunology, carried out on animals, he said it was not too much to hope that, in the near future, the results obtained might be made applicable to the human being.

from all causes, these two diseases had regularly caused 22 per cent. of deaths—and that, as phthisis declined, cancer had increased, and as cancer declined phthisis had increased, so as to compensate exactly for the decline in the other disease. No similar relationship existed between tuberculosis and any other important cause of death.

In England the deaths in occupations were also classified at each census period, he added, and an analysis of them showed that heavy mortality from tuberculosis in early life was always followed, 20 years later, by a correspondingy heavy incidence of cancer in the same occupation. Hence, it appeared that one factor in the causation of cancer was the facility which existed for infection with the tubercule bacillus. Experimental evidence with mice, however, tended to show that this bacillus was not the direct cause of cancer; but that, in certain circumstances it became a chronic internal irritant. This irritation might slowly lead to changes characteristic of cancer, and evidence was accumulating which showed that the connecting link between irritation and cancer could be supplied by one of the types of the white blood corpuscles.