

THE CANCER CAMPAIGN IN AMERICA

SUMMARY OF REPORT ON A VISIT TO THE UNITED STATES

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Maraisburg

Dr. Charles Berman has recently visited the U.S.A. to attend the Fifth International Conference of Geographic Pathology, where he had been invited to contribute a paper on *primary liver cancer*.

This conference, with two others, viz. the International Congress of Clinical Pathology and the International Meeting of the Association of Medical Museums, was sponsored by WHO. The three conferences were held simultaneously, but separately (except for two plenary sessions), in the Shoreham Hotel, Washington, and lasted one week. There was a combined attendance of 1,400 doctors from all parts of the world.

The Geographic Pathology congress dealt with cancer of 5 organs, viz. the stomach, liver, lung, heart and uterus. Four principal 'reporters' read papers on *primary liver cancer* based on the results of a questionnaire on that form of the disease answered in various parts of the world. Dr. Berman, one of the four, submitted a paper on *Nutritional States in the Causation of Primary Carcinoma of the Liver*.¹ The other 3 reporters were Dr. P. F. Denoix, of Paris (*Geographic Distribution*), Prof. F. C. Roulet, of Basle (*Pathological Anatomy*), and Dr. J. Higginson, of Johannesburg, whose subject was *The relation of carcinoma of the liver to cirrhosis malaria, syphilis and parasitic disease*. There were several other speakers, of whom one, Prof. Pao-Chang Hou dealt with the relationship between the fluke *Clonorchis sinensis* and primary liver cancer, the commonest form of malignant tumour found among in-patients at Queen Mary Hospital, Hong-Kong.

In a joint scientific session attended by 1,200 doctors, papers were presented on several subjects other than cancer, including one by Dr. Berman on *Oryalal: an acute form of idiopathic thrombocytopenic purpura affecting African races*.²

INSTITUTES IN WASHINGTON

In Washington Dr. Berman visited:

(1) *The Armed Forces Institute of Pathology*, with its huge medical photographic department, its great medical library, and its equally famous medical museum.

(2) *The National Institutes of Health*, which comprise 7 institutes under one control and in close proximity engaged in research on cancer, microbiology, mental health, dentistry, arthritis and metabolic disorders, and neurological diseases, including blindness. They are served by the new Clinical Centre, which is a hospital of 500 beds with twice as much space for laboratories as for patients, and devoted exclusively to research, patients being admitted for that purpose only.

(3) *The Armed Forces Institute of Pathology*. This remarkable institute, located in the grounds of the Walter Reed Army Medical Centre, is an 8-storey building specially designed to resist attacks by atomic bombs. It is built of heavy reinforced concrete, most of it is devoid of windows (the rooms being artificially lighted and air-conditioned), and 3 of the storeys are underground. There are many other special provisions in case of atomic attack, including reserve electric and water supply and remote-control blast doors. By means of colour television there is direct auditory and visual communication with the operating theatres in the hospital, as well as pneumatic transport for specimens; the surgeon in the theatre will be enabled to make direct observations, gross or histological, of a specimen in the laboratory and discuss it with the pathologist there.

GORDON CANCER RESEARCH CONFERENCE

This was held by the American Association for the Advancement of Science at New London, N.H. and was the last of 24 weekly

conferences embracing many branches of science. It was designed to bring together scientists in related fields (80 attended), and to stimulate cancer research in universities, research foundations, and industrial laboratories. Dr. Berman was one of the 5 invited speakers, each from a different part of the world. His subject was primary liver cancer, with special reference to the Bantu. Many aspects of the cancer problem were discussed by these and other speakers.

CONFERENCE ON EXPERIMENTAL HEPATOMAS

This was held at Harriman, N.Y., and was attended by 75 scientists. Dr. Berman³ was invited by the National Cancer Institute, under whose auspices the conference was called. Papers were presented by many American workers on the general histophysiology and histopathology of the liver, the genetics of spontaneous liver tumours, and various aspects of experimental hepato-carcinogenesis.

PITTSBURGH

Here Dr. Berman spent several weeks as visiting professor of pathology, through the generosity of the University of Pittsburgh, and was enabled to study the scheme for the education of medical undergraduates in the problem of cancer under the U.S. Government's subsidization plan. He also attended the 3-day *Annual Meeting and Training School of the Pennsylvania Division of the American Cancer Society* at Pittsburgh. One branch of this division (the Allegheny County Cancer Unit) raised \$286,000 during 1954.

At the Medical School, which is at present being rebuilt at considerable cost, the programme of cancer teaching (coordinators Drs. D. W. Clare and H. Bisel) is incorporated into the courses taught by the departments of surgery, pathology, medicine, radiology and gynaecology. Tumour clinics are held at (1) the Presbyterian Hospital (the general hospital), which also maintains the Tumour Register, (2) the Falk Clinic (which is the out-patient department of the Presbyterian Hospital, the Women's Hospital, and the Eye and Ear Hospital—all 3 hospitals under one roof—(3) the Children's Hospital, and (4)—for gynaecological cancers only—the Magee Hospital. At these clinics representatives of the various departments cooperate with the cancer coordinators in the treatment and follow-up of cases and in the teaching programme.

MEMORIAL CANCER CENTRE, NEW YORK

This centre, closely connected with the neighbouring Cornell University Medical College, is composed of 4 contiguous cancer institutions, viz. the Memorial Hospital (for private patients), the James Ewing Hospital (a public hospital for other patients), the Strang Cancer Prevention (Detection) Centre, and the Sloan-Kettering Institute for Cancer Research.

In his visits to the *hospitals* Dr. Berman was particularly impressed by the resuscitation ward, where after operation all surgical cases are kept under observation for at least 36 hours under a specially trained medical and nursing staff, with a resident surgeon living in rooms adjoining the ward.

At the *Strang Prevention Centre* women over 35 years old and men over 45 are encouraged to attend for routine examination for the early detection of cancer. The clinical examination includes the skin, superficial lymph nodes, passages and organs of respiration, neck and thyroid, breasts, abdomen and genitalia; digital

examination of rectum and prostate, pelvic examination and vaginal-cervical smears. The laboratory examination includes a complete blood count, urinalysis, stool tests for blood, and Papanicolaou of vaginal-cervical smears. X-rays of the lungs and stomach, and proctosigmoidoscopy, are performed. Should suspicious lesions be encountered they are biopsied if accessible. Annually 24,000 smears and biopsies are examined.

The Sloan-Kettering Research Institute is, *inter alia*, pursuing investigations into chemotherapy for cancer. Thousands of chemicals have been tested on transplantable tumours in animals, but only a few have shown promise in the treatment of human cancer, and their effect to date is not curative but only temporarily restraining, and that only in certain cancers. Except for cancer of the prostate and certain sex organs, which respond to sex hormones, epithelial malignancies are almost all unaffected. Nevertheless cancer chemotherapy is making significant contributions towards the comfort of many cases with widespread malignant disease. The chemotherapeutic agents in use include aminopterin, methopterin (folic acid antagonists); 6-mercaptopurine, 6-chloropurine, 6-thioguanine, nitrogen mustard (purine antagonists); triethylene melamine, triethylene phosphoramidate, triethylene thiophosphoramidate (ethylenimines), urethane, myleran; and oestrogen, androgen, ACTH, cortisone (hormones).

AMERICAN CANCER SOCIETY

Dr. Berman also attended the annual meeting of this society, which was held in New York and lasted a week. It comprised 2 sections, for the medical profession and lay delegates respectively, and a combined meeting for both at which the early detection of carcinoma of the cervix by the Papanicolaou method was discussed, and also tobacco smoking in relation to the etiology of lung cancer. Refresher courses were held on a number of subjects of interest to the cancer campaign.

Dr. Berman's account of the work of the American Cancer Society will be published in a later issue.

CONCLUSION

A profound interest in cancer is displayed in the U.S.A., both in professional and lay circles, the latter chiefly owing to the propaganda of the American Cancer Society. The cancer death rate has steadily mounted despite the introduction of chemotherapy, radio-active isotopes, and unprecedented advances in surgery and radiotherapy. A nation-wide movement, led by the Society, has arisen to further (1) early diagnosis at cancer detection centres or in doctors' surgeries (the Five Point scheme) and (2) basic research. Never before have research workers shown such effort and determination. There seems to be little difficulty in obtaining the necessary funds.

A great interest is being taken in liver tumour, which can easily be induced in experimental animals, and a great deal of research has been conducted into primary liver cancer. However, Dr. Berman found a great deal of confusion in the minds of certain investigators on the nature of some of the induced liver tumours, of which the histological appearances differed radically from human cancers as seen in the African Bantu. This may be due to the rarity of primary liver cancer in the western world. Dr. Berman is more than ever convinced that research into primary liver cancer offers greater opportunities if carried out in Africa.

REFERENCES

1. Berman, C. (1955): Report to the Fifth International Conference of Geographic Pathology. Washington: (In the Press.)
2. *Idem* (1955): Amer. J. Clin. Path. (In the Press.)
3. *Idem* (1955): Remarks on the Human Implications of the Experimental Hepatomas. J. Nat. Cancer Inst. (In the Press.)