

The Treatment of Cancer by John E. Gregory, M.D.

A Report by the Cancer Commission of the California Medical Association

FOR OVER FOUR YEARS the Cancer Commission has been receiving reports of the activities of John E. Gregory, M.D., of Pasadena in the treatment of cancer by a method of his own development. Most of the reports have been in the nature of complaints, some from members of the medical profession and others from non-medical persons. Included in the latter are two science editors of metropolitan newspapers, both of whom reported that they had been subjected to considerable pressure by Dr. Gregory's family and friends. This pressure was directed toward securing favorable publicity in the newspapers concerned for Dr. Gregory's methods.

In January 1953 two of the members of the Cancer Commission, its chairman and John W. Cline, M.D., visited Dr. Gregory in an attempt to secure Gregory's cooperation in releasing some of his material for impartial trial by a competent group of physicians at any reputable institution of Dr. Gregory's choosing in California. No such cooperation could be secured, and in view of the claims being made by Gregory, and because of the very considerable number of cancer patients being attracted by those claims, the Commission undertook an investigation of the Gregory method of treatment.

The investigation has been conducted under considerable difficulty because of Gregory's refusal to provide any assistance whatever, not only through his refusal to supply any of the material under any conditions whatever, but also in other respects which will be apparent in the body of this report.

1. Nature of Treatment Method

Dr. Gregory's theories and their application in his treatment of cancer can best be summarized from a monograph which he has published. This volume is entitled "Pathogenesis of Cancer and Applied Therapy" and was published by Bruce Humphries, Inc., of Boston in 1952. On pages 172 and 173 of this text appears the penultimate chapter entitled "Summary." This synoptic chapter presents the following theoretical approach.

Since some animal cancers have been proved to be due to a virus it is therefore possible to produce cancer with a virus.

The milk factor not only produces cancer of the breast in mice but also "cancer of any tissue in the mouse, depending either on abnormal hormonal physiology or on the location of irritants."

Mouse cancer is identical to human cancer.

A virus has been found in over one thousand human cancer tissues tested, but not in benign tumors. The virus

has been cultured and injected into animals producing various types of cancer.

The virus produces specific antibodies in animals, a complement fixation test in human serum is "88% diagnostic for cancer."

An antibiotic has been developed for the cancer virus, and its action can be demonstrated in the electron microscope.

The amount of virus present is in direct proportion to the grade of malignancy.

Although Gregory has employed several different agents in cancer during the past few years, his latest, which is also the material which the Commission was finally able to secure for testing, he designates as Gregomycin. The final chapter of the monograph states that Gregory isolated Gregomycin at his home, and he informed representatives of the Commission that the antibiotic was isolated from the soil on his estate in San Marino. Gregory further states in his text that Gregomycin destroys both Gram-negative and Gram-positive organisms and "apparently destroys the cancer virus." He further states that his work suggests that Gregomycin should be tried on acute virus infections.

Several other facets of the Gregory concept of the cause and control of cancer are developed in his monograph. Steroid hormones are used to a considerable extent and Gregory illustrates the theoretical association of hormone treatment with the theory of the virus cause of cancer in the following example:

"A case of cancer of the breast, Grade IV, was treated with testosterone, and after one month became Grade III; after another month it became Grade II. The concentration of virus in the Grade IV cancer was high, in Grade III it was diminished, and in Grade II was markedly diminished. This shows that the same pituitary hormone which stimulates the malignant cell to grow stimulates the virus to grow also."

A supplementary measure in Gregory's management of cancer is in dietary restriction. The groundwork for his ideas on diet in the management of cancer is again to be found in his free association of the disease in animals and humans. On page 143 he states that "there is no doubt that cancer in animals is the same disease as in humans." This remarkable statement is followed by a claim of having developed cancer in animals by feeding them cancer tissue. From these claims are developed the following recommendations:

1. Public health departments should start an

3. Experimental Evidence Offered

The experimental evidence offered by Gregory is best reviewed in his monograph "Pathogenesis of Cancer," Chapter II, entitled "Electron Microscopy of Human Cancer Virus." The method employed is described as follows: "Human malignant tissue is taken directly from surgery, and with absolutely sterile technic, ground up completely with mortar and pestle, diluted with triple distilled water, and filtered through a Berkfeldt filter. The filtrate was then examined in the electron microscope. Over 1,000 malignant tissues and the same number of normal tissues or benign tumors were examined in this way." Gregory states that spherical virus-like bodies 0.1 microns in diameter were found in 100 per cent of the malignant tissue but never in the benign tumors or normal tissue. He states that these objects have cell detail including cell wall, nucleus and cytoplasm. They do not disappear when left under the electron beam for as long as one hour. Many electron micrographs reproduced in the monograph purport to show the identical cancer virus in malignant neoplasms in the mouse, human breast, leukemia, hypernephroma, colon, stomach and other sites. Gregory's original agent was an inactivated filtrate of cultures of *Bacillus subtilis Tracy*, following his observation of the phagocytic action of this bacillus on the alleged cancer virus. Apparently since his discovery of Gregomycin this earlier agent has been abandoned.

Gregory published two articles in the *Southern Medical Journal*, "Virus as a Cause of Human and Animal Malignancies," February 1950, and "*Bacillus subtilis* as an Antibiotic in the Treatment of Cancer," May 1950. Through the influence of the editor of the *Southern Medical Journal*, who also wrote a laudatory editorial on the occasion of the publication of Gregory's monograph, Gregory had an exhibit at the annual meeting of the Southern Medical Association on two occasions, in 1948 and 1952.

Gregory also claims to have reproduced cancer in animals by injection of cultures of the virus which he has so regularly identified in human cancer.

4. Clinical Evidence Offered

On the occasion of the visit of the Commission's representatives with Dr. Gregory in January 1953 he described a series of 14 patients whose histories are included in his monograph, and some of which will be described below.

On that occasion he also brought five patients into the room, and these patients were seen under the following handicaps: No facilities for adequate examination were provided and only a brief "spot" examination was possible; no written records were offered, Dr. Gregory reciting the details of each patient's history from memory; no microscopic sec-

tions or radiographic studies were available for review. These five patients were as follows:

1. A woman who had had radical mastectomy for an extensive carcinoma of the breast had developed recurrent local disease one year prior to this occasion, for which x-ray therapy had been given. She then developed nodes in the supraclavicular space and some new recurrences on the chest wall and Dr. Gregory stated that his treatment had kept the disease under control for eight months. Local examination showed small nodules of apparent recurrent disease on the chest wall at the site of the radical mastectomy. There were small hard supraclavicular nodes up to 1.5 cm. in diameter characteristic of metastases.

2. An 8-year-old girl who had been treated by thyroidectomy, x-ray treatment and radioactive iodine for a papillary carcinoma of the thyroid. She then came under Dr. Gregory's care and at the above time had residual tumor in the right submandibular area.

3. A woman with recurrent carcinoma of the breast involving the chest wall and axilla following surgical treatment and irradiation, under treatment for some months by Gregory; examination showed a small area of residual local carcinoma.

4. Another woman with carcinoma of the breast and local recurrence and lymphedema of the homolateral arm following mastectomy, in whom Gregory believed that his treatment has maintained control of the local recurrence since the summer of 1952 (six months or less).

5. A woman with bilateral breast carcinoma, originally treated surgically by bilateral radical mastectomy, who developed a recurrent left axillary mass which was enlarging and since the use of Gregory's agent this area of disease has regressed to a fairly small but obvious residual focus of carcinoma.

In Chapter VI of the Gregory monograph case histories of 16 patients are presented, presumably offering the best evidence for the effectiveness of his treatment that Gregory could muster. The longest period of survival in any of these cases after the onset of Gregory's treatment is two years. In one patient treatment had only been under way for five months and in still another treatment was *just starting*. With one exception all of these patients had previous treatment by conventional methods in their immediate past. In addition, the behavior of the disease in some of them was simply a manifestation of the expected natural history of the process. In many instances it was impossible to determine whether survival and apparent control of the disease was due to treatment or to natural causes. Reasonable examples of these factors are as follows:

CASE 2. (Page 80 of monograph): Mrs. M. L. treated in 1946 by x-ray and radium therapy for carcinoma of the cervix. In June 1947 exploration

"Culture of this fluid on blood agar plates and in thioglycollate broth yielded no growth. Antibacterial activity was assayed in tryptose broth. In a final dilution of 1:10 the material showed no inhibition of growth of organisms after 24 hours' incubation at 37°C. The organisms used were as follows: *Micrococcus pyogenes var aureus*, *Streptococcus pyogenes*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *B. subtilis*.

"Antiviral activity of the fluid was tested against the PR8 strain of influenza Type A virus. Albino mice weighing 20 to 30 grams each were used. Groups of 10 mice were inoculated intranasally each with .05 cc. of 10⁻⁵ and 10⁻⁶ dilutions of egg passaged virus. Of the mice which received the 10⁻⁵ dilution the test group of 10 mice was inoculated intraperitoneally each with 0.3 ml. of 'Gregomycin.' The control group of 10 mice received saline intraperitoneally. Intraperitoneal injections were given repeatedly 12, 24, 48, 72, 96 and 144 hours after the virus injection. All surviving mice were killed on the tenth day following viral injection and the lungs examined to determine the percentage of lung involvement which might be attributed to viral infection. Results were as follows:

Percentage of Involvement:	No. of Survivors				
	0	25	50	75	100
Gregomycin (One dead 7th day—50% lung involved).....	1	3	5
Saline (One dead 9th day—100% lung involved).....	2	3	1	2	1
Virus Control—Received 10 ⁻⁵ virus intranasally. No intraperitoneal injection.....	6	4

"The above data indicate that Gregomycin did not alter the course of influenza infection in mice following a minimal infective dose of the virus."

For purposes of testing the preparation against animal neoplasms of known sensitivity to other agents, a supply of Gregomycin was submitted to Nathan B. Friedman, M.D., Director of the Division of Laboratories, Cedars of Lebanon Hospital, Los Angeles, a pathologist with wide experience in experimental neoplasms and their response to many different agents. Dr. Friedman's report is as follows:

"A mice bearing Cl300 neuroblastoma and C₃H mice bearing an epidermoid carcinoma were treated with courses of therapy up to 18 doses. The treatment was daily except for one day's rest over weekends. The daily dose was 400 roentgens of radiation, 0.5 milligrams per kilogram of nitrogen mustard and .075 cc. of the test solution (Gregomycin).

"Other animals were treated by direct injection of tumor masses with 2 mg. per kg. of nitrogen mustard, 1 mg. per kg. of TEM, 2 mg. per kg. of aminopterin, 0.25 cc. of colloidal chromic phosphate (0.5 mc.), 0.1 cc. of physiological saline and 0.1 cc. of test solution.

"Tissues were examined histologically at appropriate intervals.

"The characteristic reaction to radiation and the similar effects of the other known therapeutic agents

were evident in the tumors. There were no differences between the tumors treated with the test solution and the controls.

"Certain known effects on the intestinal mucosa of the chemotherapeutic agents employed were also noted in the treated tumor-bearing animals. No such effect was noted in the animals treated with the test solution."

Further samples of Gregomycin were submitted to John B. Field, Associate Professor of Medicine, University of Southern California School of Medicine, who is in charge of a project for the testing of agents of possible chemotherapeutic value, particularly against strains of leukemia in animals. The report of Dr. Field is particularly pertinent because of the several cases of leukemia which Gregory quotes as having benefited from his antibiotic.

"The material was tested against acute lymphatic leukemia L4946 transplanted into mice of the Ak strain. The results of the test are as follows:

	Survival	
	Average	Range
Controls.....	13 days	12-14 days
Test group.....	13 days	8-16 days
Positive controls.....	18 days	16-20 days

(Amethopterin, 1.5 mg. per kilo)

"The Gregory material was given 0.5 cc. per day intraperitoneally which calculates to a relatively large dose when compared with human dosage. The test material as well as Amethopterin were given in the usual fashion beginning 48 hours before implants of the leukemia and injected daily in the stated dosage.

"It can be concluded that the test material had no influence on the survival of Ak mice with an acute leukemia, whereas in very small doses Amethopterin significantly prolonged the lives of the leukemic mice. Furthermore, every mouse in the test group succumbed with frank and general evidence of leukemia."

7. Clinical Evidence Developed by the Cancer Commission

Other than the five patients seen at Dr. Gregory's home and described under section four above, there seemed to be no possibility of the Commission's developing any clinical evidence of its own as the supply of the agent procured was adequate only for the laboratory testing reported above. As an indirect approach, however, all the death certificates signed by Dr. Gregory or his assistant were reviewed at the Pasadena Department of Health for the years 1947 to 1952, and for the years 1948 to 1952 in the cities of Los Angeles and Glendale. Those certificates listing cancer as the cause of death totalled 82, and were distributed by anatomical primary sites or by system as follows:

16 leukemia (lymphatic, acute and chronic)	2 multiple myeloma
7 colon	2 lymphosarcoma
	1 parotid

logical fracture. Dr. Gregory removed her to a hospital and put her in traction, still insisting that she was going to recover completely. Eventually the pain became extremely severe and as many as six or seven injections a day were given but only emperin and codein were given for her pain. The labels on the vials from which the injections were given were usually removed but on one bottle the husband saw the name "Gregomycin" and several others in which the designation all started with "Greg." Dr. Gregory charged \$15 per week for the first 18 months of care but during the terminal period before he was finally discharged from the case he sent a statement for a fee of \$475 for two months. The husband tried to contact Dr. Gregory concerning a reduction of his statement but Dr. Gregory refused to talk to him.

9. Autopsy Data Reviewed by the Commission

It has only been possible to obtain paraffin blocks of tissue from two autopsies on patients treated with Gregomycin until a week or less before death. Review of sections of these blocks by three pathologists, John W. Budd, M.D., Louisa E. Keasbey, M.D., and James E. Kahler, M.D., indicated no satisfactory evidence of any chemotherapeutic effect on the neoplasm.

10. Consultant and Other Reports

Opinion concerning Dr. Gregory has been limited to an investigation of certain statements which he has made to representatives of the Cancer Commission. Only three of these will be recited.

Following the urgent request of January 1953 that he designate some institution in California for a trial of his agent, Dr. Gregory said that he would approach the president of the College of Medical Evangelists concerning the possibility of such trial. During the following months the president of that school informed the Commission on two occasions that he had not been approached by Dr. Gregory. On July 8, 1953, the chairman of the Commission wrote to Dr. Gregory reminding him of his proposal. Under date of July 27, 1953, Dr. Gregory stated in a letter to the chairman of the Commission that he had had difficulty in contacting the president of the College of Medical Evangelists, but he was able to "contact Loma Linda," and that "they have not been able to have time to review the work." An inquiry was then addressed to the president of the College of Medical Evangelists and on August 9, 1953, he replied that investigation had been made and no evidence found to indicate that Dr. Gregory had made any approach, formal or informal, to any of the administrators or responsible faculty members, either in Los Angeles or at the Loma Linda campus.

Dr. Gregory also informed a representative of the Cancer Commission that in the year 1950, when he was en route home from the International Cancer

Conference in Paris, he had been invited to go to Bethesda, Maryland, to address a group of the staff of the National Cancer Institute. Dr. Gregory stated that the Institute was able to arrange a meeting of many of its staff members on a Saturday evening especially for Dr. Gregory's convenience, that he presented his theories and his experimental and clinical work in some detail and that his presentation was received with very considerable enthusiasm. This extraordinary account was investigated by addressing a letter to J. R. Heller, M.D., Director of the National Cancer Institute, who replied on November 3, 1953, that he had ascertained the situation concerning Dr. Gregory's visit to the National Cancer Institute and the facts were as follows: Dr. Gregory stopped at the Institute on his way home from Paris and saw only Mr. Vernon Riley, a member of the staff of the laboratory of biochemistry. Mr. Riley told Dr. Heller that he talked for about 20 minutes with Dr. Gregory, answered questions courteously and furnished Dr. Gregory some reprints. Dr. Heller was not able to find knowledge of any meeting or gathering to which Dr. Gregory was invited nor was he able to uncover any responsible person other than Mr. Riley with whom Dr. Gregory talked. Dr. Heller further stated that so far as he knew no member of the Institute had endorsed Dr. Gregory's theories or findings relative to the presence of viral bodies in human cancers.

Still another example involved a noted scientist in cancer research, John J. Bittner, Division of Cancer Biology, University of Minnesota. One of Dr. Bittner's achievements has been the identification of one of the primary causes of breast cancer in mice, an agent transmitted through the maternal milk which has the properties of an infectious agent or virus. During the interview in January 1953, referred to above, Dr. Gregory stated that Dr. Bittner had been a close personal friend of his for some years, and that he had discussed his research and theories with Dr. Bittner, who had endorsed all his claims concerning the virus etiology of cancer.

Such support from so eminent a scientist, if verified, warranted respect, and a letter of inquiry was sent to Dr. Bittner.

Under date of January 31, 1953, Dr. Bittner wrote as follows: "While it is possible I have met [Dr. Gregory] at a meeting, I do not remember him and so could not call him a 'close personal friend.' I might add that I have checked my file and I am unable to find any correspondence with Dr. Gregory."

After some remarks about the nature of the mammary mouse agent, Dr. Bittner made the following comments: "If the agent acted like a typical cancer virus, we would be unable to explain many of our data, but if the agent was comparable in action to an