

E t i o l o g y
— AND —
Treatment of
Cancer and Tuberculosis

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Life never exists apart from the colloidal state of matter. Indeed a very rigorously maintained state of dispersion of the colloids of our tissues is essential to the retention of life and health. Orthodox pathology has not yet adapted itself to the advances made in physical chemistry in recent years. Its misconceptions and enigmas still persist, while the more modern and efficient conceptions of health and disease are detailed only in a few foreign texts and monographs and such writings as my own. However, the wealth of physical chemical data now at hand forms a strong foundation for therapeutic advance, *including osteopathic practice*, and offers the only rational explanations of disease and recovery processes.

Aside from traumatizations, every disease state is the result of the action of one or more toxins, generally of germ origin but sometimes of medicinal origin, and the essential fundamental disease change is a reduction in the state of dispersion of the tissue colloids. The location of maximum action of the toxin and the degree of change characterize the disease picture and serve its classification, but the most interesting matter is the mechanism provided physiologically to protect against and bring about recovery from the fundamental colloid injury.

The tissue colloids are made up of ultramicroscopic particles of quite uniform size and quite uniformly dispersed in the tissue element. Each particle carries a surface charge of electricity in consequence of which it repels all other particles and thus presents Brownian motion. Chemical change in the particles, through toxic action, causes them to undergo lysis, that is, to lose their electric charges and motion. They fragment and clump together to form large sluggish particles that may even include the dispersion medium within their substances and form a jelly. In the areas affected, the various characteristics of inflammation are thereby produced. The capillaries dilate or disintegrate; the coagulability of the blood is altered, the tissue swells and the blood may become so greatly gelated that it no longer flows. Capillary disintegration may go far enough to result in hemorrhage, with consequent tissue injury and symptoms. When severe and acute, a fatal encephalitis, hepatitis or nephritis may result, and when mild and chronic, secondary tissue changes, such as arterial sclerosis, arteromatous change, obliterative endarteritis, fibrosis, infiltrations and the parenchyma degenerations result.

Inasmuch as the primary change that leads to the rest of the pathology is a loss of correct dispersion of the colloid particles, nature has presented three types of recovery and immunity mechanisms that meet the issue at its very inception. These mechanisms are the electric charges

that accompany nerve impulses, electronic action of the internal secretions and the direct action on the toxin accomplished by such protective glands as the parathyroids.

Although physiologists have long recognized the fact that an electric charge accompanies every nerve impulse, yet no idea of the significance of this charge has ever been ventured. We must now admit that such charges not only cannot simply disappear by going to waste, but that they must exhibit an electronic effect upon the tissues to which the nerves are distributed. In the first place, they enhance the dispersion of the colloids of the gland cells about to enter activity because of the nerve impulse and they also correct the lysis of the colloids that was brought about through the products of oxidation of glucose formed in the energy producing process. Thus these charges maintain the efficiency of the physiological mechanism and assure continued normal function.

Their value in the correction of colloid lysis brought about by disease toxins is quite as important and *osteopathic practice has demonstrated this in an exceptionally striking way in pneumonia*. Here the hepatization of a lung presenting such extreme lysis of the colloids that they have gelated so that the blood can no longer flow through the capillaries, and the capillaries themselves through injury to their walls have become so extremely dilated that the lung appears solid. Yet the shower of electric charges directed into the region along the nerve fibers can change the gelated colloids back to their normal dispersion and the blood flows on, the capillaries contract and the congestion disappears, breathing is again restored and normalcy is re-established. In the presence of a good colloid dispersion, the pneumonia germ has no soil on which to thrive. It dies off and is eliminated. Here the electric charges associated with nerve impulses have routed a toxic invader.

However, the body also has provided means for correcting colloid injury by means of the chemical bodies it elaborates in the glands of internal secretion. The thyroid and pancreas secretions protect against slow lysis of the tissue colloids. The adrenals and parathyroids protect against rapidly lytic toxins and the gonads protect against all types of injury. Inasmuch as the toxins concerned are most often generated in the constipated colon or in infected tonsils and teeth, the tendency is that the body is subjected to many years of toxic action before rational measures are used to correct the situation, and the tissues have been profoundly injured, the protective glands exhausted or have taken on aberrant changes, as in toxic goitre. The economy has learned that more effective means are needed to prevent tissue injury than

simply the correction of an injured dispersion and the attempt to attack the toxic group and convert it into a harmless substance was inaugurated. My work on the parathyroid function demonstrates the mechanism of this attempt very well. The rapidly lytic guanidin poisoning, which always becomes evident in a week or so after complete removal of the parathyroid glands and which gives rise to the most profound tissue degenerations, convulsions and death, is constantly prevented by the action of the minute parathyroid glands. This protection is accomplished by the conversion of the guanidins to the harmless substances, for the ureas tend to aid in the dispersion of the tissue colloids. In a measure at least, the cause is changed into the cure and again nature's wonderful efficiency is demonstrated.

The parathyroid glands are latest to evolve in the animal kingdom and they represent an improvement on the earlier type of internal secretion activity. In the embryo their development is attended with cell pictures resembling cancer tissue, even infiltration and metastasis. Even in the adult animal, parathyroid tissue is found metastasized to the various neighboring tissues and into the chest. This resemblance to malignant behavior suggested that cancer tissue might also be a new gland of internal secretion in the early process of its evolution and, therefore, that the cancer effort is directed toward the destruction of a certain lytic toxin ultimately. By following this surmise, we first ascertained that the advent of a cancer growth is preceded by years of intoxication, that in eighty percent of the cases the precancer toxic symptoms are ameliorated after the growth gets well under way, that the increase of the toxin in the body speeds up the rate of cancer development and growth, that the removal of the toxin by immunization is followed by complete involution and disappearance of the malignant growth and all its metastases and permanent recovery is had no matter what part of the body was involved. Thus we are able to predict the perfection of a new gland of internal secretion on the order of the parathyroid, which will protect those who live in the distant future from many of the toxic states that people must suffer from in this age.

However, the practical features of this research are far more interesting and valuable, for the toxin that causes the cancer growth to come is responsible for most of our present day ills of so-called unknown etiology. It took years of concentrated effort to isolate and identify this toxin and after much study we learned in what direction the cancer cell activity attempts to change the toxin to make it harmless and useful. It thereby became possible to prepare the altered toxin synthetically and study its therapeutic action.

The chemical problems involved are too technical for discussion in this paper. The therapeutic observations are of interest to everyone engaged in the art of healing and the most salient findings are detailed here.

The altered toxin, instead of exhibiting colloid lysis, enhances the state of colloid dispersion exemplified in the increase in healthy weight and growth of patients cured of cancer. The altered toxin thus presents an antitoxic activity on the tissues of the body but it demonstrates this action still more in that it photochemically converts the toxin present in the body to its own antitoxic type of structure. It changes the cause into the cure even more effectively than the parathyroid. We, therefore, name it the synthetic cancer antitoxin, even though its curative range includes other fatal diseases than cancer.

Very often one dose of the antitoxin given hypodermically will bring about complete and lasting recovery from the most advanced state of cancer. Our earliest treated cases remain cured for a period of eleven years and are perfectly well.

After the antitoxin is administered, a series of recovery reactions running in definite cycles is instituted, through which the toxic cause is converted to antitoxin and thus is removed and no longer can call forth the cancer cell effort. Thus the cancer cells become obsolete and useless. They undergo self-digestion, are converted back to the nutrient elements taken from the blood that were used for their growth, and these elements are returned to the blood where they can again be used for the general nutrition. The hemoglobin may increase from twenty percent to fifty percent in four weeks and to one hundred percent in twelve weeks.

The areas involved are reconstructed back to normal as healing takes place and function is re-established as the following case histories demonstrate.

The pregrowth toxic changes disappear and complete normalcy is had.

The order of recovery is the reverse of the development of the disease. Thus the last extensions and metastases disappear first, then the earlier extensions and finally the original growth, and thereafter the toxin vascular injury, endarteritis, sclerosis and myocarditis, nephritis, the thyroid aberration or insufficiency, the epilepsy, weakened tissue resistance to tubercular infection or whatever the toxic change may happen to have been.

The recovery reactions are characterized by febrile and grippy attacks coming at three week intervals until all cancer tissue has been digested and absorbed and until complete immunity has been established.

Inasmuch as this immunity prevents the existence of the cancer causing poison in the body, the tissue injury this poison is able to produce is no longer possible and the infections that ordinarily can thrive on the tissues so injured no longer have support in the immunized individual. The most important infection concerned in this connection is tuberculosis. This fact is amply demonstrated in that cancer cases who harbor tuberculosis recover from both conditions after the cancer treatment and tuberculosis patients who are free of cancer no longer carry the germs twelve weeks after receiving the cancer antitoxin. About four to six weeks following treatment, the tubercle bacillus is found dead in the sputum and other secretions that formerly exhibited living germs, and the germs are then seen undergoing fragmentation and digestion within the bodies of the leucocytes. Just like in the case of the cancer cells which can no longer live in the body from which the toxin was removed, so here the tubercle bacillus can no longer find suitable soil and dies off and is removed like any dead tissue debris.

Dizziness is a very frequent pregrowth symptom, since the more delicate structures of the brain, such as the center of equilibrium, are most easily injured by the toxin. Two cases are here reported to illustrate.

Mrs. M., age 58, Nurse by profession. Carcinoma of uterus with extensive abdominal involvement. History taken June 22, 1926.

Family History — Malaria, Typhoid, scarlet fever, several attacks of diphtheria, after eighteen years of age.

Pregrowth Symptoms — Dizziness and blind spells that were very severe at times and associated with loss of muscle control. These spells have been better for the last year. Had to take soda constantly for years to allay hypercidity of gastric ulcer.

Present Illness — Operated for severe cervical laceration after first baby was born. Second childbirth caused still greater injury nineteen years ago. When a young girl, she was thrown from a horse that lightly stepped on her abdomen. Abdomen tender ever since.

Noticed bleeding from the uterus in April, 1926, (ten years after menopause). Bleeding more or less constant ever since, also odorous discharge, pain in abdomen and back. Examined at the Harper Hospital clinic, Detroit. Specimen removed and diagnosis of cancer of cervix given. Patient applied for antitoxin treatment June, 1926, and our examination revealed a much nodulated vaginal vault fairly widely infiltrating the region and fixing the uterus. The greatest changes were found in the lower abdomen and pelvis, where a lobular fixed mass as large as

a boy's head filled the region below the umbilicus, and on the left side reached above the umbilicus for a distance of one and one-half inches. This mass interfered greatly with bowel action and pressed upon the bladder. Mass continuous with the uterus and fixed, adnexia involved. Black stools for a month indicated bowel involvement.

Patient was placed on detoxication regime for a week, re-examined, findings confirmed and antitoxin administered. Recovery was completed by October 12, 1926, so far as physical findings were concerned, but in November a more or less complete general misery, achiness, chilliness and fever, a slight amount of bleeding from the uterus, reflex bladder irritability and pain in the lower ribs and epigastrium was experienced, with some pain in the lumbar muscles of the right side. At this time, the dizziness, which subsided soon after the antitoxin was administered, returned for a few weeks and then left permanently. In December the patient started to enjoy the best health she ever had. She was again examined by a number of very able surgeons and pronounced free from any trace of disease. She is at work and in the best of health.

This patient made a rather easy recovery on the treatment. Her strongest reaction occurred about the time of the twentieth week, presenting the usual detoxication symptoms and reflexes that extended rather widely to the muscles of the abdominal wall in the viscera. Since the cancer mass was a large one and much toxic material was absorbed in a period of four months, the general misery and achiness of the twentieth week period was fairly intense. Although the patient presented a fair advanced carcinomatous condition, she was able to make a splendid recovery.

The recurrence of the pregrowth toxic state of dizziness for a short period, during her last reaction, is in keeping with our observation that the first sign of the disease to come is the last to go. Thus the nerve tissue that first took up and combined the toxin and were, therefore, the longest exposed to its action, were the last to regain normalcy through immunization. Therefore, complete freedom from the pregrowth toxic state is the last event in the recovery process. Likewise the last expressions of the sickness are the first to disappear. Thus, the digestion of the growth is the first noticeable step in the recovery process. These observations emphatically characterize the pregrowth toxic state with relation to the cancer growth.

Another, but even more advanced case that displayed dizziness as the dominant pregrowth symptoms is here given to demonstrate that regions of the body which have absorbed and held the toxin are the more favorable locations for metastases to take hold and flourish. It will be

seen that the following case of cancer of the rectum presented severe headache and dizziness for years before the rectal growth came and that the brain became the site of a serious secondary growth. Our explanation of this phenomenon is that circulatory factors favored the deposition of toxin in the brain, thus providing plenty of stimulus as well as a favorable focus for such cancer cells that lodged there, so that rapid growth of such cells was supported.

Pregrowth toxicity of central nervous system predisposing to metastasis of rectal cancer to the brain.

Mrs. D., age 32.

Family History — Mother had cancer of uterus (cured by antitoxin).

Pregrowth toxic period characterized by dizziness with loss of balance as well as frequent severe headaches for ten years before growth appeared.

In December, 1923, she began to suffer with pains just below the navel and in the small of the back. In March, 1924, bleeding and discharge started coming from the bowel. In April, vomiting set in with hemorrhages from the stomach. Even as early as January, 1924, the headaches became the most serious factor in the disease. They were constant and intense. By March the headaches became associated with tension in the muscles of the neck, which gradually assumed a state of constant spasm. About the middle of May, this condition spread to involve all the muscles of the back until a constant state of convulsion with head drawn back was established. During the first week in May, she was taken to Grace Hospital for x-ray studies. A few days later, a specimen of tissue was removed from the rectum for microscopic examination and the report was given her husband that it was cancer.

Our first observation of the patient was made May 15, 1924. Two-thirds of the abdomen was found occupied by a large lobulated mass that involved the liver, the stomach region and the left side down into the pelvis. The rectal examination revealed a copious, putrid, bloody drainage coming from a growth within, that appeared to obstruct the lower segment of the bowel. She suffered constantly with her head drawn back and the back arched in continuous spasm. Vomiting of putrid, bloody material had been on day and night. The vomitus was projected some 6 feet at times. Headache was evidently agonizing. — These symptoms were positive and sufficient proof that a growth was also present in the brain.

Treatment was given and recovery followed rapidly at first, and then gradually until its completion was definitely established in November, 1924. All masses had been absorbed and all tissues healed. Her strength, normal blood quota and normal weight returned by October but some

dizziness recurred for the last two weeks of that month and did not entirely subside until November. Thus, with the passing of the first symptoms of the pregrowth toxic state, recovery was completed. She remains in the best of health she has ever known.

The interesting feature demonstrated in this case was the prolonged and intense poisoning of the brain tissue by the cancer-causing poison, expressed by the dizziness and headaches. We believe that an obliterative endarteritis of moderate degree was the first change initiated. Thus the circulation was impeded and the brain tissues placed at a disadvantage so that toxin could accumulate and interfere with the function of some of the brain tissue. This same vascular change also provided an advantageous site for the lodging and support of metastasis arising from the growth in the abdomen. There can be no doubt but that the metastasis to the brain occurred fairly early in the history of the case.

The return of perfect health, with complete recovery from cancer as widespread and advanced as was presented in this case, is certainly a tribute to nature's ability to fight for normalcy when the cause of the abnormal condition is correctly removed.

Gastric ulcer, colitis and nephritis are the most common pre-cancer lesions and are illustrated in the following cases.

Mr. H., Age 51.

Family History—Negative to cancer.

Past History — Mumps three years ago and "Flu" in 1924.

Pregrowth symptoms — Dizzy spells for last fourteen years, on retiring would feel as if taking somersaults. Also transient blind spells and feeling as if all his muscles were giving way, when he had to sit down to avoid falling. These spells did not let up until the sixth week after the treatment was given. Gastric ulcer (adequately diagnosed) twenty years ago, from which he was practically well until seven years ago. Three years ago, he developed a general dropsy. The ulcer caused pain relieved by eating or taking soda: vomiting of blood at times and occasionally black stools. The dropsy subsided for the most part, but remained easily noticeable until the sixth week after treatment, when it disappeared.

Status of Patient—Had been vomiting regularly and had slimy dysentery since fall of 1924, had frequent diarrhea for last twenty years. Nothing but bloody diarrhea for last three years. Burning pain across the upper abdomen constant since fall of 1924. Lost from 178 to 155 pounds since January, 1925; Vomiting of decomposed blood and had tarry stools since January, 1925; Cough, difficulty in swallowing, and a sense of pressure in the throat, rapidly getting worse in last month. Unable to retain even water in sto-

mach last several days, pressure in chest suggesting heart impairment. Wasserman reaction negative (Michigan State Board of Health). Our examination was made April 25, 1925. Color of skin and eyes yellow, plus a cyanotic flush, general slight dropsy, worse in ankles. Left supraclavicular space presents a cancer mass size of a large walnut. Increased mediastinal dullness and heart apex beat shifted to left. A cancer mass in abdomen reaching from ribs to two inches below umbilicus on right side, tender and hard, anterior shelf of sigmoid involved by cancer mass size of small egg. X-Ray report from Dr. C., of Jackson, Michigan, to Dr. W., "Lesser curvature of stomach presents a smooth appearance but there is ragged shallow filling defect on the greater curvature that extends from the prepyloric region upward to the cardiac region. This filling defect is constant in all films. The cap is not seen on any of the films. Slight ilia residue at five hours and normal colon." Visceral reflexes to muscles of back, causing spasm of erector spinae muscles from 5th to 10th dorsal vertebra, reported by Dr. W., were noted.

Treatment was given in April 1925, and recovery followed the course given below.

Temperature—For nearly twelve weeks after treatment, he ached all over more or less. Chills and fever set in on the fourth day, lasting a few hours, returning the ninth and twenty-third days, also had fair fever during the ninth week and at the end of the eleventh week, temperature reached 101½. Hoarseness, cough and difficulty in swallowing disappeared by end of fourth week. Color improved with cyanosis and dropsy completely absent. Mucous and bloody diarrhea stopped by the end of the sixth week and abdominal masses were barely palpable. Supraclavicular masses already absorbed.

Pregrowth symptoms except colitis completely disappeared by end of seventh week. Some bleeding from rectum with chills and fever occurred during the ninth week reaction, thereafter the excessive sensitiveness over abdomen disappeared and stools large and formed were passed for the first time in several years — regular natural bowel movements ever since at the end of the eleventh week. All cancer masses completely disappeared and visceral reflexes no longer produce spasm of spinal muscles. All aching and reaction symptoms had disappeared and patient stated that he felt better than for the last twenty years. Examination revealed no trace of the disease. Gain in weight was at the rate of one and one-quarter pounds per week throughout. Present weight 170 pounds, strength returned. In perfect health and at work.

In this case we find the more common pre-growth functional disturbance of equilibrium centers in the brain had lasted for fourteen years.

There was also an old gastric ulcer of twenty years' duration before a cancer growth had become established. In addition, a colitis of some twenty years' duration and a nephritis of three years' duration.

For a time also there was a cardiac impairment, expressed by the cyanosis and weak heart action. The cancer poison then had been attacking a number of the vital tissues for some time before the body responded in an attempt at protection by means of a cancer growth. This growth made its appearance in the gastric ulcer and its extent was unusually great as shown both by the X-ray and by the large size of the cancer mass that could easily be mapped out by examining the abdomen. The secondary growths in the rectum, chest and above the collar bone in the neck, demonstrated how widely the cancer had spread. We judge that the cancer growth started about three years before the patient was brought to us, that during its first two years it had grown slowly, but that during the last year it grew rapidly causing much gastric distress and malnutrition. The fact that all of this mischief, the ulcer, the colitis, the nephritis indicated by the dropsy as well as the equilibrium impairment, the heart disturbance and the cancer growth, cleared by making him immune to the cancer poison establishes beyond a question that they all had the same cause and were all a part of the cancer disease.

Inasmuch as tubercle bacilli can not live in one who is immune to the cancer causing poison, Tuberculosis has special significance.

Miss A., age 16, bedfast with entire destruction of left lung by tuberculosis and far advanced tuberculosis of right lung, tuberculosis of left kidney, which increased the size of that organ to equal the volume of a large grapefruit, tubercular meningitis with fever running as high as 105½° in the afternoons. She vomited every few minutes for the last three weeks preceding our visit, whether food was taken or not. Heart was found displaced to the right of the sternum because of the absence of lung tissue in the left chest. Pulse registered over 130 per minute and was very weak. Color very livid and cyanotic, appeared as though bloodless, hemoglobin 20%, breathing rapid, shallow and labored. She had been in the Detroit Tuberculosis Sanitarium until the progress of the disease had warranted the conviction that recovery was hopeless and she was given up and taken home to die.

The cancer antitoxin was given in July, 1922. The fever dropped from 105½° to 101° within a week, vomiting stopped entirely within two weeks and general improvement in nutrition was evident in three weeks. All tubercle bacilli were found undergoing frag-

mentation and digestion in the leucocytes by the sixth week. Examination from week to week gave evidence of improvement of the right lung and kidney but the left lung gave no evidence of breathing until after a year had passed. In the meantime, the left chest became completely solidified by fibrosis and the heart remained displaced to the right side of the chest. Thereafter, the solid left chest gave faint breath sounds as lung tissue began to form at the upper central part of the chest. This new lung tissue gradually increased until the whole left chest became occupied by normal tissue. As this process of new lung generation went on, the heart slowly changed its position to its normal location in the left chest and gradually resumed its normal rate and strength of beats. She is in perfect health today without any signs of tuberculosis, presents a perfect health picture and works every day without fatigue. She claims that she is no longer susceptible to colds as she formerly had been. She has since married and last year gave birth to twins.

A more advanced case of tuberculosis can be imagined only with difficulty. She had been given up to die in a week or two by experts in tuberculosis. Yet this patient made a complete recovery, with complete tissue reconstruction and with, not only restoration of perfect health, but with immunity to her former disease and its associates, for she is now apparently immune even to colds to which she formerly was exceedingly susceptible. This was not accomplished by attempting to kill the tubercle bacilli in her body but by removing the toxic basis of the tissue injury, upon which the support of the tubercle bacillus depends within the body. As in the former case, how rapidly this toxic basis can be removed by the cancer antitoxin is evident from the fact that it only takes some four to six weeks before all tubercle bacilli are found to be dead and can be taken up and digested by the leucocytes. If the fundamental toxic cause of tuberculosis were not the toxin that causes a cancer growth to come, removing and immunizing against the cancer poison would not cure the disease. We might add that the younger sister of this girl was brought to us the following year with generalized pulmonary tuberculosis. She also made a perfect recovery on one cancer treatment. The baby brother was brought to us with tuberculosis of the spine the next year. His diagnosis was made by x-ray examination and physical examination by Detroit's most expert bone specialist. This youngster also made a recovery on one cancer antitoxin treatment.

Miss D., a little girl of 9 years of age, was brought to us in February, 1923, with ad-

vanced tuberculosis of the spine. Two vertebrae in the neck were involved to the extent that it was necessary for her to wear a steel frame to support her head and jaw. She had been under the care of a number of specialists, whose best efforts did not check the disease or the bone destruction in the least. She was given the cancer antitoxin and made a complete recovery on one treatment in six months. So rapid was bone reconstruction that, three months after the treatment was given, she could dispense with the steel frame and six months after treatment no deformity could be noticed.

Her health remains perfect.

The location of the tubercular infection makes little difference. It is the fundamental cause of the disease that is important and is a constitutional affair. Tuberculosis may express itself in a variety of ways but, no matter what the clinical picture might be, true recovery can only come about by removing the fundamental cause. To illustrate, we can do no better than to refer to a case of hydrocephalus or what is commonly called water-head.

While attending a young woman bedfast with advanced tuberculosis, who made a nice recovery, we saw her baby nephew in his cart. His head was much too large for a youngster of two years, so much so that it was difficult for the child to hold his head up. The shape of the head, the wide separation of the frontanells and sutures of the skull, the appearance of the eyes and the attitude of the limbs, made a perfect picture of hydrocephalus. The child evidently had contracted tuberculosis from its aunt and the infection located in the meninges, causing closure of the aqueduct of Sylvius and thereby causing retention of the cerebral fluid in the cavities of the brain. On the basis that the condition of this child was due to tuberculosis rather than some other cause, we gave him the cancer antitoxin in January, 1920.

His recovery was rapid, much more rapid than could have taken place were a tumor present that would have to be absorbed. The tubercular inflammation of the brain had evidently been completely overcome in six weeks for the head, eyes and limbs appeared and behaved normally by that time. So far as we know, no case of hydrocephalus has ever been cured before. Such patients usually die early but, if they live to childhood, they are practically always imbeciles, for the disease is progressive. This child made a complete and rapid recovery in six weeks. He is perfectly normal at present and one of the brightest students in his school.

We might report plenty of other cures of moderate and advanced tuberculosis resulting by immunization against the fundamental toxic state that permits the development of this infection. The fact that one absolutely hopeless far advanced case can make a recovery on the antitoxin for cancer is proof sufficient that the basic cause is the toxin that the cancer growth comes to fight. In such cases, no walling-off process could play any appreciable part in the limitation of the disease for the lesions were too large and too widespread. Indeed, these cases had fluminated after the walling-off process had failed to hold the disease in check.

Recovery, therefore, in the advanced stages of the disease, can only be based upon the removal

of the fundamental cause so that the existence of the tubercle bacillus is no longer possible in the patient's body. Then, if there is sufficient vitality to bring about removal of the debris and reconstruction of tissue, true recovery takes place.

If space permitted many hundreds of case histories could be presented to illustrate the complete recovery from thoroughly diagnosed far advanced cancer where the pregrowth lesions were toxic goitre, colitis, obliterative endarteritis, psoriasis and gastric ulcer as well as some rare conditions like multiple sclerosis and syringomyelia. However the ground is fairly well covered in a book which I wrote on a recent vacation and which will be mailed free of charge to any physician who wishes it.

