Physician's Handbook

of

VITAMIN B-17 THERAPY

THE McNAUGHTON FOUNDATION
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PHYSICIAN'S HANDBOOK

of

VITAMIN B-17 THERAPY

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PREFACE

Cancer, like many diseases, is an expression of conflict between the living organism and hostile factors in the total environment.

The mind, through the nervous system, can influence this conflict constructively or destructively.

Hence to a varying degree Cancer is something which the mind is permitting to happen to the body.

From contact with more than 5000 Cancer patients over the past 15 years it is apparent that for many of them Cancer was a form of socially acceptable suicide.

For best results under Vitamin B-17 therapy the patient must co-operate mentally and physically, positively and actively in his treatment.

More often than not: Quitters die, Fighters live.

Andrew R. L. McNaughton

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Second Edition

INTRODUCTION

Excerpts from the writings of Dr E. T. Krebs, Jr., 1973

Our present state of knowledge accepts that Cancer is a chronic metabolic disease[1] in which the host resistance is diminished. All metabolic diseases now prevented or cured are, without exception, prevented or cured by vitamins, minerals, and other factors normal to the diet and to the animal economy. By contrast, no chronic or metabolic disease — or any other disease *of the host* has ever been prevented or cured by toxic chemicals or by radiation or by anything else foreign to the natural experience of the organism.

We have characterized the totality of the pancreatic enzymes as the "intrinsic surveillant antineoplastic factor", in contrast to the extrinsic antineoplastic factor comprising the nitrilosides or Vitamin B-17*. The immunological system in its lymphocytic function is looked upon as a secondary intrinsic anti-neoplastic mechanism. The denudement of the trophoblast or neoplast cell of the shell[2,3] that confers upon it immunological privilege opens the cell to not only immunological attack but to further digestion by the "deshielding" enzymes themselves.

The control of the trophoblast external to gestation is not only under the surveillance of the totality of intrinsic enzymes and the immunological resources of the host as exemplified in the behavior of lymphocytes,[4] but it is also undoubtedly (in my opinion) under the naturally selected surveillance of dietary or extrinsic enzymes brought into the organism.

This is, then, the tentative rationale for the heavy reliance upon fresh and raw plant material as contrasted to cooked foods (with total and irreversible enzyme inactivation) even when supplemented with all the known vitamins and required minerals.

Dietary deprivation of enzymes or vitamins or minerals may be decisive in the proper functioning of the immunological forces of the body.[5,6]

*A vitamin is an organic substance essential to biological transformations in the animal organism, in this case a water-soluble accessory food factor.

With the failure of the immunological mechanism for one reason or another,[5,7,8] a prolonged and fulminating deficiency of Vitamin B-17 is determinative of the clinical emergence and persistence of neoplastic cells that are otherwise checked and destroyed by the intrinsic surveillant mechanism.

A major thrust in the prevention and control of cancer is held to rest in the adequacy of this extrinsic or dietary factor, with the intrinsic surveillant antineoplastic resources playing a less critical, albeit important, role.

As such these extrinsic and intrinsic factors are mechanisms natural to the experience of the organism consistent with the physiological management of the metabolic disease cancer.

THE MODE OF ACTION OF VITAMIN B-17

The antineoplastic effect of Vitamin B-17 is based upon the toxicity of cyanide to mammalian cells. The closeness of the lethal and therapeutic dosages of pure cyanide makes its use impractical.

In Vitamin B-17 therapy the cyanide is liberated under safe conditions. Thus adequate dosage is possible without the occurence of toxic effects. Detoxification of cyanide occurs in normal mammalian tissue through the action of the enzyme rhodanese in the presence of sulfur-bearing compounds, converting free cyanide to thiocyanate.[20,21] Cancer cell deficiency of rhodanese may be a determining factor in the effect of the cyanide upon neoplasms.

Hydrolysis of amygdalin (Vitamin B-17) releases hydrocyanic acid, benzaldehyde, and two sugar molecules. Dean Burk[9] has demonstrated a synergistic increase in antitumoral activity between the released HCN and the benzaldehyde.

ROUTES OF ADMINISTRATION

ORAL

Oral administration of Vitamin B-17 is the most convenient and frequently the most effective route. The tablet sizes are from 100 to 500 milligrams. For patients unable to swallow, the tablets may be broken up and added to soft food.

For some patients in whom gastric acidity is deficient,* side reactions of weakness or headache following oral administration may be avoided by taking citrus juices or grape juice, or hydrochloric acid tablets such as betaine hydrochloride to prevent these unpleasant reactions.

INTRAVENOUS

When higher dosages are desired, the intravenous route is recommended. This route provides a relatively high concentration in the blood as compared with the oral route. The 3-gram vial of Vitamin B-17 solution is injected slowly into a vein. When the veins are undetectable, B-17 may be injected intramuscularly *(see below)*. Intra-

*see page 17 re: calcium di-orotate and gastric acidity.

venous dosage may range from 3 grams to 9 grams or even 12 grams per day, and is administered, preferably, between meals.

INTRAMUSCULAR

Intramuscular injections may be used when the intravenous route is impracticable. The content of one 3-gram (lyophilized) vial is dissolved in 6 cc of sterile distilled water and injected into large muscles such as the gluteus, vastus, deltoid, or triceps.

Intramuscularly the absorption of Vitamin B-17 is slower than intravenous, and the available concentration of active material is less. There is loss of the B-17 draining away through the lymphatic circulation. Also the depot of high osmotic pressure fluid may cause pain at the site of the injection. However, intramuscular injection is convenient for use when a physician is not available.

INTRATUMORAL

Intratumoral injection is not advised. In place of intratumoral injection employ the arterial route up-stream of the tumor in accordance with table II (page 11) to produce peak concentrations within the tumor.

DIRECT APPLICATION

Water solutions of Vitamin B-17 may be applied to open wounds by saturating several layers of gauze to cover the raw area.

Vitamin B-17 water solution may be used as an overnight retention enema also, or instilled directly into the intestine via a colostomy, following a cleansing irrigation.

Vitamin B-17 in solutions may be made into a water-soluble salve and applied to localized skin lesions.

Vitamin B-17 in a solution of 1 gram/cc of DMSO has also been successfully used for direct application.

OTHER ROUTES

Vitamin B-17 can be administered via intrapleural and intrauterine injection. Intra-arterial administration should be carried out only in a hospital. *(see table II following:)*

GUIDELINES FOR TREATMENT

CRITERIA FOR EVALUATION OF CLINICAL PROGRESS[10]

TABLE I

1) Decrease of pain, indicated by a decrease in the amount or frequency of the use of narcotics or sedatives.
2) Increase in the sense of well-being.
3) Increased appetite.
4) Disappearance of fetor from lesions.
5) Increased energy or endurance.
6) Increase in weight.
7) Increase in muscle strength.
8) Improvement in blood and urine chemistry.
9) Increased tissue repair.
10) Decrease of tumefaction.
11) Decrease in the output of presumptive chorionic gonadotrophin in the serum or urine as measured by the pregnancy test (see page 23).
12) Return of symptoms following the use of placebos or interruption of treatment.
13) Remission of symptoms following the reinstatement of therapy.

TABLE II — SUGGESTED ARTERIAL ROUTES:

site of the tumor	artery to be injected
brain, eye	Internal Carotid Artery
face, jaw, tongue	External Carotid Artery
thyroid	External Carotid & Superior Thyroid Arteries
breast	Subclavian at the Internal Mammary Artery
abdomen	Descending Aorta at the Coeliac Axis
pelvis	Descending Aorta at the Internal Iliac Artery
leg	Femoral Artery (see page 15)
arm	Brachial Artery
lung	Brachial Vein

GENERAL CLINICAL ROUTINE

Current treatment at the clinics in Germany, North America, and the Philippines centers around a dosage of 3 grams of Vitamin B-17 per day, with a range of one gram to twelve grams per day, with a total dosage in the initial course of approximately 100 grams.

While the laboratory work* is being carried out, over the first four days the patient receives a three-gram injection each day. After receipt of the laboratory studies the patient is reviewed with the data collected. If no response *(table I)* has been noted by the fifth day of injections, the dosage should be doubled. Under this general procedure positive responses may be observed to develop within three weeks if not sooner.

When patients are unable to receive intravenous or intramuscular injections every day they should take Vitamin B-17 orally on the days when they are not receiving the injections.

CLINICAL FACTORS THAT DETERMINE THE ADJUSTMENT OF DOSAGE

During the course of treatment with vitamin B-17 it is sometimes advisable to change the dosage. The sense of well-being of a patient is probably the best practical guide to decide if a change in dosage is indicated. The sense of well-being is influenced by the patient's capacity to dispose of the toxic products that result from tumor breakdown.

For example when drainage from a cancer area is inadequate or detoxification and excretion are impaired, toxins released by lysed cancer cells may result in an occasional episode of weakness, dizziness, or increased body temperature, or other evidence of toxemia such as nausea, vomiting, diarrhea, fever, mental confusion. High dosage could be followed by a higher rate of tumor destruction and toxemia than a patient can tolerate. Such toxemia is usually temporary lasting from a few hours to one day and subsiding as detoxification and elimination adjust to the rate of tumor breakdown. Should the patient's impaired sense of well-being continue, however, the dosage level should be decreased accordingly, and perhaps raised once again as well being is restored.

Where extensive radiation has taken place, or where chemotherapeutic drugs have been used, their toxic effect may mask the evidence of toxemia from cancer cell destruction. Under such conditions the physician's judgment will determine the need for possible dosage change.

*Appendix A, page 26.

With Vitamin B-17 therapy in Leukemia the destruction of the cancerous process does not immediately lead to a reduction in quantity or quality of circulating "leukemic" cells, but may show an initial moderate increase. Here again the useful criterion of adequate dosage is the patient's sense of well being over a period of many months and possibly years, during which the gradual decrease of circulating white cells may be followed clinically.

On the whole, should detoxification and elimination be adequate, higher dosages are well tolerated by patients receiving up to 20 grams daily of combined oral and intravenous administration *(see page 15)*. Where the response is very good and higher dosages are used, progress against the cancerous process may be rapid. Good results, however, are usually obtained using the standard 3 grams per day.

TYPICAL DOSAGE SCHEDULES

In adjusting dosage schedules it is desirable that administration of Vitamin B-17 and enzymes should be kept separate. For example the Contreras Hospital Del Mar routine prescribes B-17 one hour before meals, Pangamic Acid (Vitamin B-15) at the end of each meal, and the pancreatic enzyme mixture prescribed at mid-morning and at 10 p.m. *(see page 16)*.

In a few patients Vitamin B-17 has been given at the rate of 2 grams orally every two hours, 12 grams per day.

EXAMPLES OF DAILY SCHEDULES

1) *The Contreras Clinic Schedule:* The average dosage is 3 grams I.V. daily (6 day week) for two to three weeks, followed by 3 grams injected every other day, with 1.5 to 2.0 grams orally on alternate days for several weeks, followed by injection of 3 grams of B-17 twice a week, eventually decreasing the injection to once a week, oral B-17 given on alternate days.
2) *Conservative Schedule:* This starts with injections three times a week, oral B-17 tablets every other day to bring a cancer crisis under control*. Under this schedule 3 grams of Vitamin B-17 are given intravenously every other day and 1 gram orally on the alternate days.

*A cancer crisis is defined as: "active and progressive disease".

3) *High Dosage Schedule:* This is used after an initial trial of several days with 3 grams intravenous of Vitamin B-17. The Higher Dosage Schedule is 6 grams intravenous daily for five days, followed by 9 grams intravenous every other day for fourteen days. On those days when the injections are not given, oral Vitamin B-17 is administered in one-gram doses followed five hours later with a half gram. Following the increased I.V. series proceed with 1.5 grams oral B-17 for the next 21 days.
4) *The Nieper Schedule:* This schedule requires the taking of 100 to 200 mg of bromelin enzyme about an hour before each meal; followed by 1 gram of Vitamin B-17 a half hour later. The dosages of Vitamin B-17 may vary from a half gram to 1½ grams or higher (orally).

RATE OF ADMINISTRATION

The rate of administration of Vitamin B-17 has been found to be more important than overall quantity, peak concentration being better than continuous low concentration. Thus a set amount of 1.5 grams daily is preferably given at least 1 gram at a time and a half gram five or six hours later. (Note that a steady concentration of high dosage and rate is described under Typical Dosage Schedules above.)

Intravenous administration may be carried out by the drip method in saline or by means of a needle and syringe. A number of factors influence the decision, and the technique used is left to the judgment of the physician.

DOSAGE RANGE[10]

Recommended dosage ranges of Vitamin B-17, either oral or injected, are non-toxic. The usual dosage ranges are well below the following calculations:

For the calculation of the upper limits of dosage use this procedure:

300 mg Vitamin B-17 per kilogram of body weight
(one kilogram equals 2.2 pounds).
approximately equal to 140 mg Vitamin B-17 per pound;

Examples:
for a 154 pound adult (70 Kilograms) the upper limit of dosage is about 21 grams a day.
for a 100 pound person the upper limit is 14 grams per day.

As a rule successful control of cancer crises occurs at considerably smaller dosages than is indicated in the above calculations. Dosages higher than the usual routine *(see page 13)* have occasionally been administered without toxemia.[16] For example: 1) 19 grams per day for a thirty-day series of combined oral and intravenous Vitamin B-17; 2) a single approximately 40-gram intra-arterial dose followed by a daily maintenance of 3 grams I.A. and I.V.; 3) a daily 12-gram intravenous drip alternating weekly with a 9 and 12 gram intravenous injection daily.

DOSAGES IN ANIMALS[10]

Dosage ranges of Vitamin B-17 based on animal toxicity studies indicate no acute or cumulative toxicity nor antigenicity, teratogenicity, or other toxic reactions in dosages in excess of 100 times the maximum intravenous dose used in human therapy. The rate of 100 mg per kilogram administered per minute is safe in canine experiments. Oral doses of up to 2500 mg/kilogram of body weight have been safely administered to dogs. In animal experiments with rats, mice, rabbits and dogs the minimum LD_{50} via the oral route was found to be 295 mg/kg of body weight (in rats).

MAINTENANCE DOSAGE IN HUMANS

Over a period of time a total dosage in excess of 300 grams is the average in controlling a moderate cancer crisis. The time needed to develop the maximum response is four months to over a year. If good response *(see page 10, Criteria of Clinical Progress)* is obtained within the first three weeks, the dosage may be reduced or the clinical schedule changed to suit the convenience of the patient.

A severe cancer crisis brought under control may be maintained in a quiescent state by the oral administration of 1 gram of Vitamin B-17 daily. However some patients claim to feel "better" or "safer" with a 1.5 to 2.0 grams of B-17 daily. Such dosage is determined by the patient's sense of well-being, gain in strength, increased appetite, weight gain, and psychological improvement with reduction of anxiety and nervousness, with exhibition of a more nearly normal degree of optimism and interest in his environment.

Abnormal situations, stress or ill health of any kind have been known to be followed by a renewed outbreak or progression of the cancer process in some patients. The attending physician should be aware of these possibilities in patients in whom the cancer is under control. The patient's sense of well-being may not be a reliable guide in connection with such an apparently unrelated stress. During such

stress the physician's own observations should be relied upon in judging whether the patient might be over-extending his physiological resources in his rising physical response to the occasion. The physician is cautioned not to be misled by the patient's own optimistic statements made in the heat of a stress crisis but to be aware of the possibility of the patient "running on nerves" with observable nervousness from over-extension and exhaustion of physical resources. Increase of dosage during such periods of apparently unrelated stress may even control the rate of nervous energy expenditure.

When a cancer crisis has been successfully controlled for more than two years, with patient showing good objective responses in weight gain, increased strength, return to a more nearly normal state of activity and vigor, with negative CGH urine tests *(see page 24),* and with an improvement in x-rays or other objective evidence, the maintenance dose may be reduced to dietary levels of nitriloside of at least 500 milligrams of Vitamin B-17 per day.

ACCESSORY THERAPY

(see Appendix B for listing of available compounds)

1) ROUTINELY PRESCRIBED

PANCREATIC ENZYME PREPARATIONS containing trypsin and chymo-trypsin are included as an essential part of Vitamin B-17 therapy.

Oral dose of pancreatic enzyme preparations is usually two tablets (4x NF) 3 times daily between meals for a total of six tablets each day. They may also be administered as 3 tablets in the mid-afternoon and 3 tablets just before retiring, or given at the same time with bromelin *(see below)*.

The enzymes and Vitamin B-17 should be scheduled at a different time.

BROMELIN is included in the therapeutic regimen for its proteolytic effect, and for a possible synergistic effect suggested by Dr Nieper as occuring with Vitamin B-17. The oral dosage is 100 to 200 mg three times a day, a total of 300 to 600 milligrams per day.
Bromelin may be given with the pancreatic enzymes as stated above, but is usually prescribed an hour before each meal.

CALCIUM SUPPLEMENTS are prescribed to reduce pain and in an attempt to correct calcium deficiencies.

CALCIUM DI-OROTATE in tablets or capsules is sometimes included in routine therapy as an aid in the utilization of conventional calcium compounds.[31] Calcium di-orotate is believed to bring about

good pain relief in connection with metastatic bone lesion and recalcification.[11]

Patients with normal or above normal stomach acid should ingest calcium di-orotate in acid-resistant coated granules. On the other hand achlorhydric patients seem to absorb the calcium di-orotate without special coating.

The usual oral dosage is 3 capsules or tablets with meals, for a total of 1½ grams per day. Capsules or tablets may also be administered in the form of a rectal suppository in cases of extensive bone involvement (a dosage of 500 to 1000 mgs).

2) ACCESSORY THERAPY NOT ROUTINELY PRESCRIBED BUT RECOMMENDED

VITAMIN B-15 (Pangamic Acid)[12] prescribed as 50 mg tablets is probably useful in increasing the cellular uptake of oxygen. Dosage is one tablet with each meal, or three per day taken at the end of each meal.

VITAMIN C is useful as a possible control of undesirable oxidations,[13] and for its presumed effect on adrenal hormone production and increased liver function. It may also be useful in detoxification of free radicals and in acidifying the mucoid coat of the neoplastic cells. The dosage is up to 6 grams daily, 2 grams with each meal.

VITAMIN E may augment the anti-oxident effect of Vitamin C and aid in the conservation of oxygen in tissues. Patients with elevated blood pressure should be started on small doses gradually increased as blood pressure adaptation occurs.[14] The dosage range is from 300 to 2400 I.U. per day.

VITAMIN A in large doses* may improve the integrity of the epithelial tissues. A useful variation is "Carotene with Oil", in which a glass of fresh carrot juice with a tablespoon of vegetable oil is given three times a day. Another objective of Vitamin A administration is the possible effect of stimulation of the thymus gland to increase the sensitization of the T-Lymphocytes.[4]

ELIMINATION

A history of chronic constipation may be a factor in the etiology of some cancers. In any case constipation is to be avoided. Generally laxatives or cathartics should be avoided through increasing dietary roughage.

*25,000 units three times a day[15]

COMBINED MODALITIES OF TREATMENT[32a]

There are no contraindications to the use of Vitamin B-17 and/or the proteolytic enzymes along with surgery, radiation, and the cytotoxins.

All forms of radiation can in one degree or another shrink benign as well as neoplastic tumors. Many of the cancer chemotherapeutic agents are similarly capable of shrinking tumors, malignant or benign. Unfortunately any shrinkage is gained at cost of destroying somatic cells, especially the primitive repair cells. Although many benign tumors are radio-sensitive, and while the trophoblastic growths of the chorionepitheliomas and similarly highly malignant undifferentiated cells are radio-resistant, the radiation may increase the proportion of neoplastic cells in the tumor,[17] making the index of tumefaction a misleading and unreliable criterion of anti-neoplastic therapeutic response.

However surgery is often live-saving in cancer by correcting blockages, repairing fistulas, correcting hemorrhage, reconstructing plastic damage, and the like.

If surgery can remove a tumor completely, as in early non-metastatic cancer of the uterus, it may conserve the health and life of the patient. The same applies to the use of surgery in pre-neoplastic hyperplasias, and polyps, papillomata, skin lesions, leukoplakia, senile keratoses, etc. Where rational surgery is used, B-17 and proteolytic enzyme therapy is not contra-indicated in any way, and is indicated even before surgery.

Since pulmonary neoplasms appear to be especially responsive to the use of Vitamin B-17 and proteolytic enzymes, such an approach is the preferred method of treatment.

Except for lesions in or close to the skin, radiation or the radiomimetic cytotoxins are to be avoided because of their highly immunosuppressive and other destructive effects.[18]

LIGHT

Researches on the effect of various kinds and sources of light[30] point to the use of artificial illumination as increasing the growth rate of tumors in animals, and the possible stimulation of existing cancer in humans. Patients should avoid constant artificial lighting except full spectrum fluorescent lights, and be out of doors in the sunlight several hours every day without glasses.

Life span of test animals with tumors, and apparently human cancer patients also seems to be increased significantly by utilizing the full spectrum light source of sunlight not filtered by window glass, auto windshield glass, clear eyeglasses, tinted (dark) glasses, or contact lenses. (The ultraviolet range is especially beneficial but is filtered out by ordinary glass and plastics.)[30]

HYGIENE AND DIET

The following principles of hygiene and diet recommended for cancer patients are more extensively described in the PATIENT'S HANDBOOK OF VITAMIN B-17 THERAPY.*

HYGIENE

1) Do not smoke or remain in a room with a smoker.
2) Do not drink alcoholic beverages or sugary beverages.
3) Avoid permanent wave lotions, toxic hair sprays, synthetic cosmetics, lipsticks made out of coal-tar dyes, anti-perspirants.
4) Television: as little as possible *(see Appendix D)*.
5) An adequate amount of sleep is recommended.
6) Increase the oxygen intake *(see page 17, B-15)* with exercise in the open air and sunlight away from freeways and other sources of air pollution. When out in the sunlight remove eye-glasses and do not wear dark glasses.
7) The bowels should be evacuated at least once a day.
8) A daily warm bath is recommended to stimulate the circulation.

DIET

The following dietary regime is usually strictly followed for the first three or four months of therapy, and may be gradually relaxed following improvement.

The diet should be based almost exclusively upon fresh fruits and vegetables and/or their *fresh* juices. Food from the animal kingdom should be limited to the frequent use of fresh fish, and the occasional use of poultry† cooked without the addition of fat or salt. The patient should memorize the following dietary formula:

*Science Press International

†Be careful to obtain poultry that has not been treated with hormones and is free from viral and bacterial infection[32]

PLANT FOODS: All edible fruits and plants are recommended. These are preferably eaten raw and as fresh as possible. Some may have to be cooked just enough to make them edible. Brief and judicious cooking for short periods and at low heat (as done in Chinese restaurants) will not appreciably destroy enzymes in foods. All plant food should be free of added chemicals of any kind, such as in sprays, preservatives and the like. Whole grains are to be preferred to refined flour. All sprouted grains are even more desirable as foods.

ANIMAL FOODS: Fish and poultry should be baked, boiled or broiled (never fried), and prepared without salt or animal fat. Any animal food of any kind that is not fish or poultry is to be avoided.

Tea and coffee without any sweeteners or honey or dairy products, may be used moderately, although their avoidance is preferred. Herb teas may be used as substitute. Tobacco is strictly to be avoided.

The average persons eats his own weight in sugar every year. Sweeteners should never be added to any food. The avoidance of sugar and products containing sugar is essential.†[32b]

Moderate vitamin and mineral supplementation is advised. The supplements used must include *all* vitamins and *all* nutritional minerals.[6]

Though the fruit and vegetable diet should supply a substantial quantity of fiber or indigestible cellulose, it may be advisable in many cases to augment the fiber content of the diet by adding 2 to 4 tablespoonsful of 100% All Bran each day. This may be taken in fruit or vegetable juices or mixed with the food.

Specific foods to which the patient is sensitive are to be avoided, and the addition of bran is to be made with the consent of the physician or nutritional advisor.

Our biological commonsense impels us to the insistence upon fresh, raw and uncooked fruits and vegetables as well as their juices for all dietary purposes in general, but impellingly so for the cancer victim.

THE ROLE OF POSITIVE THINKING

The Physical Aspect

The effect of a positive attitude in increasing the body's immunological response in overcoming disease can be observed in alterations in serum proteins, antibody production, and the total immune response of the organism.[19] Patients should be advised that their bodies need the help and stimulation of positive attitudes and optimistic thoughts.

†Dr. John Yudkin, M.D., Ph.D., Professor of Nutrition and Dietetics, Queen Elizabeth College of London University.[32b]

The patient's co-operative effort in taking responsibility for his diet and hygiene, for taking the Vitamin B-17 tablets and the enzymes, for follow-up diagnostic tests, and for acting positively on his own behalf is essential to the most complete controlling possible of his cancer. If the patient's attitude is uncooperative or negative with the continued use of tobacco, cigarettes, or exposure to known occupational carcinogenic environment, the patient should be dealt with in a forth-right manner. Negative attitudes should be thoroughly discouraged.

The negativism associated with the majority of cancer patients prior to Vitamin B-17 therapy is one of the corrections which may be brought about in the course of this therapy. Persistent negative attitude and failure to improve may indicate that the dosage is too small or too infrequent.

The Psychological Aspect

"The mind, the emotions, and the attitude of a patient play a role in both the development of a disease, cancer included, and the response that a patient has to any form of treatment." (Air Force Major O. Carl Simonton, M.D.)*[33]

The onset of cancer may be correlated with major crises previously occuring at both social levels and deep personal levels of life experience, characteristically the loss of personal orientation or ego diminishment brought on by major disruptions such as occupational or social reversals, bereavement or deprivation, divorce. As such, cancer may appear in the self-defeating patient as "a form of socially acceptable suicide."

Self-defeating attitudes should be recognized by the physician, who may indicate to the patient that he is using his illness to further his personal psychological objectives, and this is why his thinking and behavior remains negative in spite of objective gains of the therapy.

Patients (and their families) should also be encouraged to carry on or develop interests outside of their illness as indeed the majority of successful patients do, since with Vitamin B-17 therapy many are relieved of the continual reminder of cancer by the relief of pain and the reduction of other symptoms.

*In the treatment of cancer Dr Simonton uses meditative techniques in addition to conventional therapies for his patients (see Appendix A), advising both patients and their close family members to participate in group meditation sessions several times a week.

SUGGESTED MECHANISMS OF ACTION OF VITAMIN B-17

Charles Gurchot, PhD

Oral doses of Vitamin B-17 seem not to be much affected by the action of the acid medium of the stomach, but pass into the intestine where the substance is acted upon by bacterial enzymes.

In the intestine the enzyme complex Emulsin containing the enzymes β-glucosidase, Benzocyanase, and others, degrades the Amygdalin into four components: Hydrocyanic acid, Benzaldehyde, Prunasin, and Mandelonitrile, which are absorbed into the lymph and portal circulations.

Cyanide is converted to thiocyanate probably in the blood circulation, and certainly in the liver by the enzyme rhodanese in the presence of sulfur-bearing compounds.[20,21] The circulating thiocyanate exerts certain physiological effects on blood pressure and thyroid action, and is not excreted rapidly. (In the absence of the enzyme or sulfur, the cyanide may form cyano-hemoglobin.)

In cancer patients some thiocyanate finds its way to the site of the cancer lesion.

The benzaldehyde formed in the intestine probably has no important function, but in the circulation forms benzoic acid and is excreted as benzaldehyde hippurate.

Prunasin (the mono-glucoside of Mandelonitrile) can circulate in the body and reach the malignant lesion, and as such hydrolyse to liberate hydrocyanic acid, benzaldehyde, and one glucose molecule.

Prunasin may also be changed in the liver to Mandelonitrile glucuronoside. This conversion to the glucuronoside may take place in two different ways: 1) by combining with glucuronic acid, which would remove one sugar molecule; 2) by oxidation of the terminal alcohol group of the prunasin glucose molecule.

The mandelonitrile is absorbed from the intestine, going directly to the liver where it is converted by the detoxification mechanism of joining it to glucuronic acid. It may then be excreted as the glucuronide or find its way to the site of a malignant lesion.

Glucosidic enzymes at the lesion may hydrolyse prunasin into its components cyanide, benzaldehyde, and a glucose molecule, to interfere with tissue respiration. In the process of enzyme hydrolysis pure mandelonitrile, as an intermediate step, may be released.

Mandelonitrile of itself may undergo spontaneous hydrolysis to HCN and benzaldehyde or enzymatic decomposition by benzocyanase present in the emulsin complex.

Mandelonitrile glucuronide may be hydrolysed at the tumor site by β-glucuronidase to yield HCN, benzaldehyde and glucuronic acid.

Benzaldehyde released through these processes at the site of the malignant lesion may be reduced to benzyl alcohol, and combine with the thiocyanate to form benzo thiocyanate. This compound is further reduced to a thio-alcohol, benzo mercaptain, and hydrocyanic acid. In this manner HCN reappears and may continue to do so in a cyclic manner until the intracellular conditions that permit the reaction involved in the cycle are no longer operative.

These phenomena would explain the synergistic effect of benzaldehyde and cyanide in depressing the metabolism of mouse tumor slices in the Warburg apparatus (Dean Burk[9]).

In the absence of rhodanese the cyanide probably exerts its lethal effects on cell respiration, which is relatively small in cancer cells, by interference with the cytochrome oxidase enzymes.

Cyanide, either as such, or as mandelonitrile, may combine with glucose to form cyanoglucose, which, on hydrolysis forms a glucuronide heptose analogous to gluconic acid, which would be excreted, or dehydrogenated to heptose, which also would be excreted. The conditions for this transformation exist in cancer tissue and would constitute anti-gluconeogenesis.

EARLY DETECTION OF CANCER

Manuel D. Navarro, M.D., F.P.C.P.

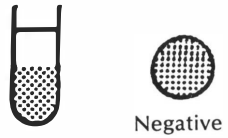
Early detection of cancer is the crux of the problem of protecting and salvaging cancer sufferers.

In 1930 Engle[22] observed the presence of chorionic gonadotrophins in the urine of cancer patients which others [23] confirmed later. Indeed, detection of choriocarcinoma is demonstrated by a high titer of human CGH which gradually diminishes upon regression of the tumor following effective chemotherapy.[24] Similar cancers have been reported among males,[25] so that it is not surprising to find positive pregnancy tests in males due to high titers of urinary CGH. The isolation of HGC from the urine of males suffering also from extra-genital cancers was described by Krebs and Gurchot[26] in 1946. Using modern radio-immunoassay techniques for examining serum, Braunstein and his associates in 1973[27] reported the presence of CGH in a substantial number of patients with a wide variety of cancers.

In 1960 Wide and Gemzell[29] introduced an immunological test for pregnancy, testing for HCG in the urine. The test is an inhibition of an antigen-antibody reaction, utilizing an anti-HCG-like serum as the antibody and sheep red cells sensitized to HCG as the antigen. (Commercial test kits available include Orgonon's Pregnostocon, and Gravindex, etc.)

The anti-HCG-like serum:

add Sensitized RBC:



Negative

To anti-HCG-like serum:
Add Pregnancy or cancer urine:
Add sensitized RBC:

Positive

The presence of HCG in the urine — in pregnancy or the malignant state — will inhibit the reaction between the anti-HCG serum and the sensitized RBC, causing the latter to settle down and form a reddish-brown ring at the bottom because the end of the tube is rounded.

Studies begun in 1963[29] illustrated a better than 99% accuracy in detecting or confirming cancer in males and non-pregnant females using these types of tests for a urinary HCG-like hormone.

CASES FOUND POSITIVE WITH THE CANCER IMMUNOLOGICAL TEST (CIT)

number of cases:		+	—	confirmed +	confirmed —	being followed up	accuracy
cancer	300	300	0	300	0	67 (recurrences)	100.0%
†other diseases	181	27	154	26	1	1 (undergoing x-ray therapy)	99.5%
†normal	130	2	128	?	?	2	98.6%

Overall tentative accuracy 99.3%

†*Cancers detected from these latter groups were confirmed histologically.*

The application of this type of test has special value in the detection of unsuspected cancers from among supposedly healthy individuals and ailing patients clinically diagnosed as non-cancerous. Also post-operative detection of recurrences as early as 15 months before the tumor reappears is extremely significant in that such recurrent cancers may be subjected to suitable preventive measures notwithstanding the absence of palpable or visible tumor.

APPENDIX A: LABORATORY DATA (check list)

Blood: Complete blood count, Hemoglobin and Hematocrit.

Liver: SGOT, SGPT,
Bilirubin.
Alkaline Phosphatase
B.S.P.
Prothrombin,
L.D.H.

Kidney: Urinalysis, Proteinuria, Hematuria, BUN

Specific Cancer tests, HCG, may be done in addition to X-rays (lungs, G.I.), biopsy, or scans of specific organs.

APPENDIX B: MATERIALS

Amygdalin, available in 100, 250, 500 milligram tablets; in solution ready for injection, or in 2 gram and 3 gram vials crystalline (Lyophilized) for dissolving in 6 to 10 cc of sterile distilled water for injection.

Pancreatic Enzymes: 4 NF and 20 NF tablets available as well in different combinations and strengths. General Research Labs.*; Viobin Co.**; Eli Lilly.

Bromelin Enzymes: Bromalain (General Research Labs.) 100 mg
Ananase (Rohrer) 100 mg, or 50 mg tablets.
Trauminase (European) 100 mg tablets.

Calcium Di-Orotate, 500 mg tablets (General Res. Labs.)

Vitamin B-15 (Pangamic Acid) 50 mg tablets

*6925 Hayvenhurst Ave., Van Nuys, Calif. 91406
**Monticello, Ill. 61856

APPENDIX C

The MEDITATION TECHNIQUE of Dr O. Carl Simonton, M.D.*

(Chief of Radiation Therapy, Travis Air Force Base, California)

This meditative technique is a combination of relaxation and visualization. Patients are asked to meditate on a regular schedule, in the morning at first rising, at noon, and before retiring at night, for 15 minutes each time. The first few minutes are used for going into a state of complete relaxation while sitting comfortably. Then the patient visualizes a pleasant and peaceful scene.

Then he is asked to proceed to visualize his cancer lesion.

Whatever visual information or understanding is necessary for the patient to visualize his cancer is provided beforehand with pictures, x-rays, or verbal descriptions of the lesion. He is also shown by means of diagrams and photographs how his own white blood cells work in his body to destroy the cancer. He may also be shown pictures of patients with visible cancers that illustrate the gradual response to treatment such as getting smaller and disappearing. He is informed that the methods really work and is given corroborating evidence.

During his meditation the patient is asked to visualize the tumor cells as dead or dying, the white blood cells swarming into the area of the tumor, destroying the tumor cells and carrying them off, the debris to be eliminated elsewhere in the body.

At the end of the meditation the patient is to visualize himself as being well, and in such good health that he sees himself actively and usefully occupied and enjoying life perhaps in new ways and by means of new activities.

*from the Seminars on Healing, June, 1973, The Academy of Parapsychology and Medicine.

APPENDIX D

RADIATION

Small doses of X-irradiation cause abnormal activity in plant and animal cells (and later, exhaustion as shown by markedly decreased activity.[30]) Repeated X-ray doses, no matter how small, should be avoided by cancer patients.

Although official levels of 0.5 milliroentgens per hour are permitted, such dosages are cumulative, and adverse effects of such repeated dosages of X-rays from television sets may occur at distances of up to 15 feet from a normally functioning set and through two thicknesses of wall in between. Fully shielded television sets are not yet manufactured, partially shielded ones emit most of their extra radiation through the bottom of the set. But the effects of even small dosages are cumulative.

The radiation of color sets proceeds also out through the picture tube through three color-rendering cathodes operating in higher voltage ranges (for color rendition), in contrast to the one cathode operating in black and white sets. Such X-radiation goes in all directions and through solid walls, but not through lead shielding.[30]

Microwave ovens are also a source of low but cumulative radiation.

APPENDIX E

Notes on the BEHAVIOR OF TUMORS under Vitamin B-17 Therapy

BONE METASTASES appearing on X-ray as thinned areas with blurred edges are observed to develop a slightly larger but clearly discrete outline within the first few months of combined Vitamin B-17 Therapy and adjunctive calcium (as calcium di-orotate). Increasing definition of the edges of the lesion is interpreted as re-calcification, which may be followed on X-ray as the defect gradually closes. Complete filling of the defect may take from five to eight months. (Nieper, Lanpar Conference, 5/73)

SILENT LESIONS IN THE LUNGS may become visible to diagnostic X-ray within the first eight weeks of Vitamin B-17 Therapy. Concurrent signs (Table I, page 11) such as weight gain, and increased strength and well being are indications that the visibility of the infiltration is often actually the result of fibroplasia rather than new tumor extension and that successful corrections of the disease are taking place.

APPENDIX F

SUBSTANCES INCREASING THE METABOLIC SUPPORT

Cancer patients frequently exhibit a derangement of basal metabolic rate which may temporarily improve under the challenge of the toxic therapies, radiation, surgery and chemotherapy. Following recovery from these destructive programs patients and their physicians may observe the seeming metabolic improvement and share optimism that such therapy was successful in halting the cancer process. With internal, metastasized cancer the frequency of recurrence (93%) attests to the temporary nature of this metabolic pseudo-stimulation. As the metabolic rate gradually returns to its former (lower) level, cancer symptomatology increases until the recurrence of tumor masses confirms the continued presence of active disease.

Clinicians report that in addition to increased susceptability to bacterial and viral infection, low metabolic rate detracts from the best effect of Vitamin B-17 Therapy (Drs. E. T. Krebs, Senior, Nieper and Contreras). While adequate iodine and protein intake and/or absorption are important,[39] the following metabolic support substances are given to increase resistance to infection and to improve the immunological responses of the patients.

THYROID extracts or supplementation are given in small amounts just sufficient to bring the basal temperature into the normal range. The most satisfactory method of monitoring the status of the patient is the axillary skin temperature measured for 10 minutes before rising three consecutive mornings. Pre-menopausal women take the temperature during the second to fourth day of the menses. The normal range is 97.8 to 98.2f. It is recommended that an adult dosage of 2-3 grains daily be observed over a period of at least two months in order that the basal rate be raised only gradually.[40]

THIAMIN chloride (or hydrochloride) is used by Dr. Nieper and others to increase the susceptibility of cancer cells to correction by Vitamin B-17 Therapy by increasing cell respiration. It may be given as 100 mg, p.o. 3 times daily, or as a component of injectible solutions of Vitamin B-17 (amygdalin) as 100 mg per vial.

ZINC.[41] In addition to anti-viral activity the application of zinc compounds to increase the healing of tissues is a recognized adjunct to metabolic therapy. Zinc orotate, 80 to 120 mg per day p.o., or zinc gluconate up to 150 mg is recommended.

VITAMIN C.[42] For acutely ill and cachectic patients massive doses may be given, 20 or more grams daily (Rx Cetane, Fellows Pharmaceutical) as part of the intravenous administration of Vitamin B-17

and or calcium supplements (such as Rx Calphosan, Carlton Pharmaceutical). For ordinary routine the daily amount varies from 5 to 10 grams of Vitamin C injected intravenously with the B-17.

APPENDIX G

VITAMIN B-17 and SICKLE CELL ANEMIA

The successful use of cyanates in the control of sickle cell crisis has been indicated clinically[34,35] and experimentally.[36,37] Thiocyanate, an intermediate product of the metabolism of Vitamin B-17 (see page 22) is thought to be the active component. The recommended daily supplementation of Vitamin B-17 is 50 to 100 mg for small children and 250 to 500 mg per day for the adult sickler.[38]

APPENDIX H

FLUORIDATION-LINKED CANCER

*Studies based upon the U.S. Vital Statistics for fluoridated versus non-fluoridated U.S. cities indicate a significant (greater than 99% confidence level) increase in cancer death rates occuring within the first two years of artificial fluoridation. The nine organ sites affected and their increase above the normal are:

Mouth, 15%; Esophagus, 48%; Stomach, 22%; Large Intestine, 31%; Rectum, 51%; Kidney, 10%; Bladder and other urinary organs 22%; other organs specifically female: Breast 15%; Ovary and Fallopian Tube, 15%.

Patients having cancers of these organ sites should be advised that they should not continue to drink or cook with fluoridated city water but should substitute bottled spring water or distilled water.

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*by Dr. Dean Burk formerly chief of CytoChemistry, The National Cancer Institute, and Dr. John Yiamouyiannis, Science Director of The National Health Federation, formerly an editor of Chemical Abstracts.

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