

# DISCOVERY OF THE ANTICANCEROUS PROPERTIES OF THE "F" VITAMINE (REPTILINE)

BY PROF. HUMBERTO AVILES

Extraordinary number dedicated to the Doctors G. O. and M. M. Burr. North-american scientists who discovered the "F" Vitamin, and to the Doctors A. E. Hansen, E. L. Holt, Turpein, H. K. Faber, D. B. Roberts, Cornbleet, Pace, J. E. Ginsberg, Clarence Bernstein Jr. W. R. Brown, E. S. Miller, E. A. White, J. R. Froy, L. R. Cercedo, H. F. Wiese, T. P. Hilditch, L. M. Meara, Deul, Greensberg and Von Groes, scientists who have extended the investigation.

SUMARY IN SPANISH, FRENCH, ENGLISH, AND GERMAN... Pág. 4

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## S U M M A R Y

Historic antecedents.—Full confirmation that the reptiline is the "F" Vitamin.—Main sources of Linoleic, Linolenic, Arachidonic.—Arachidonic Acid.—History of the "F" Vitamin.—Quality.—Distribution.—Insulation.—Characteristics.—Formulas.—Specific Activity.—Identification.—Synthesis.—Biogenesis.—Symptomathology of deficiency.—Active and inactive acids.—Therapeutic use of the reptiline.—Therapeutic dose of lipode of reptile.—Therapeutic of the "F" Vitamin in the human cancer.—Treatment of nausea of pregnancy and of the chronic abortion.—The "F" Vitamin as a protector against the atomic radiations.—The "F" Vitamin, a cheap protector of the Radiologist, extends the surgical and radiotherapeutic field.—The hibernal factor of the reptiles and their thermic or pineal eye.—Technic of activation of the "F" Vitamin by way artificial hibernation.—Bibliography of the "F" Vitamin.—Chronology of the investigations of the lipids in the cancer.—Experimental postulates that confirm that the colibacilo of constipation is the universal agent of cancer.—Constipation as a cause, prevention, diagnosis and prognosis of cancer.—Other therapic applications of the lecithins with "F" Vitamin.

EXTRAORDINARY BULLETIN OF INFORMATION OF THE CEN-  
TER OF INVESTIGATIONS OF MEDICINAL PLANTS  
AND ANIMALS.

## BIOCHEMISTRY OF CANCER DEPARTMENT

ANGELA PERALTA No. 30

GUADALAJARA, JAL. MEX.

**AUGUST 1st. 1953.**

Volume II, Number 4. Registry in transit in the local Post-Office  
Administration.

Volume 2 Number    Registry in transit in the local Post-Office  
Administration.

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DEPARTMENT OF BIOCHEMISTRY OF CANCER.

Angela Peralta 30  
Guadalajara, Jal., MEX

General Director **Prof. Humberto Avilés.**  
Editorial Chief **Roberto López Arana.**

It's published the first day of each month.  
It's distributed free in all the world.

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*I dedicate this Monograph to the scientists from the triunvirate of the American, German and Russian Schools, without whose investigations, my discovery would have been difficult.*

*I —To the Doctors Burr, discoverers of the "F" Vitamin.*

*II.—To Freund, Kaminer, Christian, Richter, Drunkney, Vierthaler and Nissle, whose investigations on the paracolibacilo of constipation have permitted me to develop the theory, that this is the universal agent of cancer.*

*III.—To the genial Russian scientists, Pavlov, Mechnikof, Michurin, Filatov, Gurvich and Lisenko whose titanic investigations have demonstrated that it is possible to control heritage of mankind, animals and plants, allowing me to develop the theory of the hybridome, base of the prevention, diagnosis and cure of the can-*

*IV —To the investigators Minot, Murphy and Castle of the Northamericans schools whose discoveries on the antianemic factor of the liver, inspired me to locate in the same anticancerous factor; Arachidonic acid.*

*Guadalajara, Jal., Mex. August 1st. 1953.*

*Prof. Humberto Aviles.*

## SUMARIO EN INGLES, ESPAÑOL, FRANCES Y ALEMAN.

### S U M A R I O

- 1 Se confirma que la "Reptilina" (Factor Anticanceroso de los reptiles, Avilés H. Prof. Bol. No. 1 Dic. 52) es la vitamina "F" constituida por los ácidos grasos: linoléico linolénico y araquidónico. Suprimen el dolor a los 5 minutos y son carcinolíticos.
- 2 Se descubre que la Vitamina "F" suprime las náuseas y vómitos del embarazo y el aborto crónico.
- 3 Se confirma que la Vitamina "F" neutraliza los efectos de la radiación atómica.
- 4 Se confirma la teoría de que el cancer es una hipovitaminosis "F".
- 5 Se desarrolla la teoría de que el cáncer es un híbrido que tiene su origen en el paracolibacilo del estreñimiento, y se comprueba estadísticamente que este está presente en el 99% de los enfermos de cancer.

### S U M M A R Y

- 1 It has been confirmed that Reptilina (Anticancerous factor from Reptiles, Aviles H. Professor. Bol. No. 1 DEC. 52) is vitamin "F" made by the fatty acids: linoleic, linolenic and araquidonic. They relieve the pain in 5 minutes and they are carcinolitics.
- 2 It has been discovered that "Vitamin F" relieves the nausea and vomiting of pregnancy and chronic abortion.
- 3 It has been confirmed that Vit "F" neutralizes the effects of atomic radiation.
- 4 The theory has been confirmed that cancer is due to a lack of Vit. "F" (hypovitaminosis "F").
- 5 The theory has been developed that cancer is a hybrid that has its origin in the colibacilo. (paracolibacilo) of constipation, and it has been proved Statistically that this paracolibacilo is present in 99% of the people suffering from cancer.

### R E S U M E

- 1 On confirme que la "Reptiline" (Facteur Anticancéreux des reptiles, H. Aviles Prof. Bulletin No. 1 Déc. 52.) est la vitamine "F" constituée par les acides gras; linoléique, linolénique, arachidonique. Ils suppriment la douleur au bout de 5 minutes et sont carcinolitiques.
- 2 On découvre que la Vitamine "F" supprime les nausées et vomissements de la grossesse et de l'avortement chronique.
- 3 On confirme que la vitamine "F" neutralise les effets de la radiation atomique.
- 4 On confirme la théorie que le cancer est une hypo-vitaminose "F".
- 5 On développe la théorie que le cancer est un facteur hybride qui on son origine dans le paracolibacile de la constipation, et la statistique prouve qu'il y a constipation chez le 99% des malades du cancer.

### A B R I S S

- 1 Es stellt sich fest, dass die "Reptilina" (Factor gegen den Krebs der Reptilien, des Professors H. Aviles, Vol. No. 1 Dez. 52) ist die Vitamine "F" durch die Fettsäuren gebildet: Linoleische, Linolenische und Araquidonische. Unterbinden die Schmerzen in 5 Minuten und sind Kresheilbar.
- 2 Es stellt sich heraus, dass Vitamina "F" die Seekrankheit, Uebelsein und Erbrechen bei der Schwangerschaft beseitigt, sowie den chronischen Fehlgeburt.
- 3 Es begründet sich dass Vitamina "F" die Effekte der Atomstrahlung neutralisiert.
- 4 Es begründet sich die Theorie, dass Krebs eine Hypovitaminose ist.
- 5 Es entwickelt sich die Theorie, dass Krebs ein Hybrid ist, der seinen Ursprung bei der Magenverstopfung hat, und man stellt statistisch fest, dass dieser in 99% der Krebstaele zugegen ist.



## HISTORIC ANTECEDENTS (1).

Inspiring myself in the discoveries of Minot and Murphy, that in 1926 acknowledged that the sick of pernicious anaemia could obtain their cure, administering in their diet great quantities of liver and starting with the similarity of this sickness with cancer, since both are cases of cellular indifferenciation, in the year of 1939 I applicated directly on a cancerous ulcer tissue of a poisonous scorpion (*heloderma horridum*) and obtained it's cure after a month of this treatment, taking note that the constipation that the patient had been suffering disappeared right away.

Later investigations led me to the conclusion that the same anticancerous found in the tissues of the scorpion, also existed with the same activity in the tissues of the chelonians, rincocephals, saurio-phidians, ophidians and batrachians.

During 13 years, up to 1952, I have been using in the treatment of human cancer, local applications of tissues from reptiles and the same taken in a coction when the cancer was not accessible.

But I found the difficulty that of all the ill of cancer because of the constipation that 99% of them suffer, have a very deficient process of digestive assimilation, I prepared from the tissues of these animals an injectable product extracted with ether, of lipoideous nature, which I named "Reptilina" observing, amazed, that this product had a much more active effect upon pain than the poison of the cobra, and I could verify besides that it's dosage is unrestricted, since it is not poisonous and does not form antibodies. (1)

In January 1953 I could separate from the lipids of reptile the anticancerous fraction that I identify as the linolenic acid, one of the fatty acids that integrate the "F" vitamin.

In February of the same year I find that the lipoids of the supra renal capsules of the pig, relieve the pain of the cancerous patients five minutes after being taken through the digestive via, identifying these antipainful fractions as arachidonis acid, the most powerful of the fatty acids contained in the "F" vitamin.

Taking as a starting point the more activity upon pain and the more carcinolitic power of the arachidonic acid, I extracted from the liver of pigs and cattle lipids rich in arachidonic acid and linolein acid, which I administered by the oral vio to the ill of cancer with promising results.

In the month of July 1953, considering that the linolenic acid is found in many vegetable oils, I experimented with doses of 100 Grams. daily by the digestive via of raw linseed oil which contains 40% of linolenic acid and 35% of linoleic acid (75% of "F" Vitamins of it's total volume) obtaining to have pain stopped five minutes after it was administered.

The same effect is produced by the sesame oil by it's contents of linoleic acid.

The most rapid effects and the most positive results I have obtained by administering to the ill of

cancer lecithins of pig's liver in a solution of 50% of raw linseed oil.

## FULL CONFIRMATION THAT THE REPTILINE IS THE "F" VITAMIN.

In 1926, the investigators Minot and Murphy gave to the world their sensational discovery that a waste of slaughterhouse, the liver, cured the pernicious anaemia. The investigations of Castle demonstrated that the pernicious anaemia was, more than a deficiency in nourishment, a loss of organic synthesis in the patient. They divided the antianaemic factor of the stomach's mucous. From the colaberation of both factors is formed the active antianaemic principle that is deposited in the liver.

Inspired by these discoveries in 1939 Prof. Aviles finds that the reptiles have an anticancerous factor and identifies it in 1952 in the lipids of the reptile and the batrachians naming it reptiline.

In 1935, he identifies this factor of the lipids of reptile as the linolenic acid proving that the strength of the arachidonis acid is 10 times more powerful than it's preceeding, the linoleic an linolenic acids, as it has been demonstrated by Turpein; arriving also to the conclusion that in the sick of cancer not only exists an Hypovitaminosis "F", but also has lost the capacity to synthesize starting from the linoleic and linolenic acids, the arachidonic acid main factor of those that integrate the "F" vitamin and the most carcinolitic of all. This loss of synthesis is due to the disappearance of the normal intestinal flora of the bacillus coli I of Nisse and to the apparition of the types III of the same author. (Klin. Woche, 35-1456-1932) pathogenic flora that produce colantreno and a fraction of that protects the cancerous cell from the carcinolitic power of the normal serum.

In July 1953, Prof. Aviles discovers that the lipids that contain "F" vitamin (sardine and herring oil) relieve the nausea of pregnancy and stop the chronic abortion. Demonstrating in opposition to Burr, the discoverer of this vitamin, that there does exist clinical evidence in human beings of hypovitaminosis "F". This Hypovitaminosis "F" exist in the sick of cancer tempting an alteration of the normal development of the cells.

All my investigations since 1939 have had a practical application with direct application upon mankind. All these valuable data are not based on animals; the same as Minot, human pain has been the light that illuminates my path and the "F" vitamin responded brilliantly, suppressing this drama, the most intense in those suffering of cancer without the loss of the strenght of the same. On the contrary, the constipation disappears, the patient recovers his energy and his intestinal flora is normalized.

With this discovery as simple as that of Minot I have given the general doctor an effective weapon and to the specialist an ally that extends his therapeutic resources and protects him;

(1) Aviles Humberto Prof. Bulletin of Int. of the Cent. of Invest. of Med. Plants & Animals, "Reptilina" Numb. Dic. 1952.

(1) See volume Information Center of Investigation of Medicinal Plants and Animals. Volume I Number 1 Dic. 1952.

## MAIN SOURCES OF LINOLEIC, LINOLENIC AND ARACHIDONIC ACIDS...

	% of the total fatty acids.	
	Linoleic	Linolenic
Small pear Oil ( <i>perilla ocymoides</i> )	53	23
Linseed Oil ( <i>linum usitatissimum</i> )	35.5	40
Limeleaved sage Oil ( <i>salvia hispánica</i> )	has	46.5
Walnut Oil ( <i>juglans regia</i> )	"	6. to 7.4
Grape seeds Oil ( <i>vitis vinifera</i> )	65	2.4
Soy bean Oil ( <i>glycine hispida</i> )	54.5	3.9
Turnip seed Oil ( <i>brassica campestris</i> )	14 to 24	2
Gilliflower Oil ( <i>cheirantus cheiri</i> )	has	has
Fruit of the beech Oil ( <i>favus selvática</i> )	"	"
Onagra Oil ( <i>aenothera biennisensis</i> )	"	"
Hevea Oil ( <i>hevea brasiliensis</i> )	"	"
Trigonella Oil ( <i>trigonella graecum</i> )	"	"
Seed of cardoon Oil ( <i>cardus mutans</i> )	"	No
Wild Flax Oil ( <i>lincanaria reticulata</i> )	"	"
Kaya Oil ( <i>toreya nucifera</i> )	"	"
Sunflower Oil ( <i>helianthus annus</i> )	56	"
Pumpkin seed Oil ( <i>cucurbita pepo</i> )	has	"
Cotton seed Oil ( <i>gossypium arb</i> )	45	"
Corn gem Oil ( <i>zea mais</i> )	41	"
Oats Oil ( <i>avena sativa</i> )	has	"
Sesame Oil ( <i>sesamus indicum</i> )	38.1	"
Olive Oil ( <i>olea Europea</i> )	7.	"

The linolenic acid also found present in the reptiles, batrachians, chelonians, ophidians and saurians; being found in great proportions in the turtle oil, 38% in relation with the total of fatty acids (lipoids of reserve). (1)

The sardine and herring oils contain it at 5 to 10%, Human fat has linoleic at 6.5% (Wagner)

(1).—More information regarding turtle oil, that it of those I have investigated more extensively, consult the following bibliography:

ZDAREK. Zeits f. physiol. Chem., 1903, 460.

SAGE. Chemist and Druggist. 1906, 691.

TSUJIMOTO. Journ. College of Eng. Tokio Imp. Univ. 1908, 178. Green turtle oil from chelonians mydas, Linn.

### ARACHIDONIC ACID.

This acid is the strongest of the fatty acids that integrate the "F" Vitamin. It is only found present in the tissues of animals where it is part of the fatty acids of: brains, liver, osseous medulla, heart and aboveall in the suprarenal capsules, in the form of lecithins.

The hepatic lecithins of oxen contains it at 17% of the total of fatty acids.

The suprarenals of oxen contain it at 20% of the total of fatty acids.

Human fat contains it at 0.3% of the total of fatty acids.

As an explanation as to why the humble class of mexican people is the one which suffers most of cancer, we must know that corn, base of their nourishment contains only small quantities of "F" vitamin (linoleic acid) since an average ration of 200 grams of corn daily only has 2.5 grams of linoleic acid, insignificant in the preparation of the diet for the normal development of the physiological functions of a man, to this we add also that these small quantities of "F" vitamin are annulated by a ferment produced from the beans (complement of the mexican nourishment) and that oxidizes the unsaturated fatty acids (Summer and Dounce). These data requires future explanation.

Furthermore in the cooking process, due to the high temperature, most of the qualities of the "F" vitamin are destroyed.

The normal coli baccillus (according to Stoll) fatty acids unsaturated which are the ones that interproduces a dehydrogenasa that acts over the fatty acids saturated, dehydrogenates them and produces grate the "F" vitamin. On the contrary the paracolibacilo III and IV of Nissle of the constipation instead of elaborating this dehydrogenasa they produce ferments that oxidize the fatty acids unsaturated, protecting in this manner the cancerous cell of the lific action of the "F" vitamin.

Other oils whose characteristic fatty acids are formed by the linoleic and linolenic are:

Lallenmatia	Oil (lallenmatia iberica)
Pine	" (picea exelsa)
Strawberry	" (fragaria vesca)
Gooseberry	" (pinus cembra)
Raspberry	" (ribes rubrum)
Pine	" (rubus idaeus)
Cranberry	" (vaccinium molluccana)
White acacia	" (caragana arborencs)
Tree of Tallow	" (sapium sebiforum)
Hemp	" (cannabis sativa)
Cervel hawthorn	" (rhamus catartiica)
Matweed	" (mendidago sativa)
Poppy	" (papaver somniferum)
Dogrose	" (rosa canina opiifolia)
Ginocardia	" (hydnocarus odorata)
Alazar	" (carthamus tinctoris)
Hollarhena	" (hollarhena antydeniterica)
Essang or de nsa-sana	Oil (ricidodendron)
Madroño	Oil (arbutus unedo)
Asparagus	" (esparragus officinalis)
Brambleberry	" (rubus caesius)
Henbane	" (hyoscyamus niger)
Amoara	" (amoara rohituka)

The following oils only have linoleic acid:

Catappa or Bradamier	(terminalia catappa)
Annona	Oil (anona squamosa)
Coffee	" (cofea arábica)
Anise estrellado	" (illisium religiosum)
Telfairia	" (telairia pedata)
Celery	" (apium graveolens)
Estrofanto	" (strofantus hespidus)
Zachum	" (balanites aegyptiaca)
Peanut	" (arachis hipagea)
Ibicus succulentus	" (ibicus succulentus)
Saffron of the indies	" (iatrophea curcas)
Chestnut from Brazil	Oil (bertholletia exelsa)
Hickory	Oil (caria alba)
Myrtie	" (mythus comunis)
Rice	" (oriza sativa)
Oleandro	" (nerium oleander)
Lufia	" (lufia cilindrica)
Joanesia	" (jonesia princeps)
Cucumber	" (citrullus vulgaris)
Tomato	" (solanum lycopersicum)
Melon	" (cucumis melo)
Celandine	" (chelidonium maius)
Daphne	" (daphne meserium)
Meadow Saffron	" (calchicum autumnale)
Yellow acacia	" (caragana arborescens)
Millet	" (panicum miliaceum)
Psidium	Oil (psidium guajava)
Neuk or from the neige	Oil (guizotia oleifera)
Manihot	" (manihot glaziovii)
Tobacco	" (nicotine tabacum)
Cokle or Xanthium	echinatum oil.

For further data about these oils, consult: (1)

REPTILINA. — ("F" Vitamin)...

#### MONOGRAPHY. - HISTORY.

In the year of 1929 the investigators G. O. and M. M. Burr, had the evidence that it is essential for the normal development of the rats, the presence of fatty acids unsaturated, in the food diet.

Turpein after that (1938) could demonstrate that the arachidonic acid is among all the fatty acids unsaturated the most powerful, and let go the hypothesis that the body needs basically of this acid. Bellying established by Mc Lean, Smedley and Nunn, that when the linolenic acid was administered in the rats's food, arachidonic acid was deposited in the liver of the same

#### QUALITIES.

1.—It is necessary only in very small quantities in the food (01.%)

2.—They contribute to the transformation of energy.

3.—They are structural unities of phospholipids.

They relieve the pain in cancer, relieve the nausea of pregnancy and stop the chronic abortion. (Prof. Aviles)

5.—They are carcinolitics. (Prof. Aviles)

6.—After taking linoleic and linolenic acid, ara-

(1) Chemistry and Technology of the oils, greases and their derivatives of G. B. Martinenghi. 1950.

Fatty acids. Klare S. Markley, 1947. Fatty acids and Derivatives, A. W. Ralston, 1948. Chemical Technology and Analysis of the oils, Fats and Waxes, Lewkowitsch, 1923. Biochemistry of the Lipids. A. Santos Ruiz. 1950.

chidonic acid is deposited in the fat of the liver and in the suprarenal capsules, where the evidence comes from that the linoleic and linolenic acids are active precursors and the arachidonic acid is of the utmost importance physiologically.

#### DISTRIBUTION LINOLEIC ACID

It is found as a glyceride in oils like the cotton seed oil, corn, sunflower, etc. In animals it is found present in the fatty acids of the phospholipids and in all the neuter fats.

#### LINOLENIC ACID

It is found as a glyceride in many oils as the small pear, linseed, etc. This acid was also identified in the fatty acids that constitute the reptile oils (2)

#### ARACHIDONIC ACID

Its sources of origin are mainly the animal tissues, being found in the phospholipid fraction, as an integrating of the lecithins, cephaline and neuter greases. This fatty acid has been possible to isolate from the lipids of liver, brains, heart and suprarenals of pig and oxen.

#### ISOLATION

The isolation process of the linoleic and arachidonic, include as the first step the obtainment of the total fatty acids of the vegetable or animal matter source of the same, and after, the individual separation of them.

The vegetables oils are saponified in the presence of the alkali or of a earthy hydroxide. The acids are extracted from the saponified mixture, using an organic solvent. The linolenic and linoleic acids are separated from the other fatty acids using the bromine with which the respective tetra and hexabromides precipitate. The bromine acids are separated and unbrominated with the use of alcohol or zinc, obtaining a mixture of linoleic and linolenic acids alpha and beta respectively, separating them after with the use of the different solubilities of their salts of zinc in alcohol.

From the tissues of animals the fat is extracted and is separated in phospholipids and true fats, by dehydration of by the use of acetone. The total fat matter is extracted with alcohol at high temperatures and in the presence of inert gas, such as the nitrogen. Once the solvent has been separated, the phospholipids fraction is precipitated with acetone and the true fats are dissolved. The phospholipid fractions are saponified in the manner and process as those of the plants. When they are bromided we obtain the octabromide of arachidonic acid, which lends arachidonic acid when debromided. This procedure by way of bromiding and debromiding give small quantities but these are of high purity. At the inverse, by direct isolation by fractioned chrystalization at low temperature, is obtained a larger quantity but of little purity.

#### CHARACTERISTICS.

The essential fatty acids have identical characteristics of solubility, are soluble in alkaline and organic dissolutions and insoluble in water.

(2) 1952. Prof. H. Aviles, Vol. of the Cent. of Inv. of Med. P. and. A. Vol. 1 No. 1.



The linoleic and linolenic acids are liquid and colorless at the atmosphere temperature and the arachidonic acid is of clear amber color and with a characteristic fish odor.

## FORMULAS.

The linoleic, linolenic and arachidonic fatty acids are carboxylics since they can decompose in various salts and esters.

The linoleic acid has a condensed Formula of  $C_{18}H_{30}O_2$  has three double bonds with which form the tetrabromide and tetrahydroxide-stearic acid by oxidizing with the permanganate. Produces also by oxidizing oxalic acids, n-caproic and ozealic, if the linoleic acid is reduced with hydriotic acid and phosphorus, stearic acid would be obtained.

The linolenic acid whose condensed formula is  $C_{18}H_{32}O_2$ , with two double bonds so it can when bromided forms a derivative of hexabromine. The oxyding with ozone gives as a result a propionaldehyde, malonic-aldehyde-carboxylic acid and ozealaldehyde-carbonilic acid.

The linolenic acid when reduced gives stearic acid.

The arachidonic acid has the following chemical

formula  $C_{20}H_{32}O_2$  has four double bonds and when bromided forms a octabromine-arachidonic acid.

## SYNTHESIS.

Up to now it has not been possible the synthesis of any essential fatty acid.

## BIOGENESIS.

Up to now there is very little known about the origin and biogenesis of the linoleic and linolenic acids in vegetable matter. Nevertheless, there is the hypothesis that the plants obtain it by general synthesis as in the case of the saturated fatty acids.

The arachidonic acid, is formed in the tissues, when nourishing the animal (rat) with linolenic and linoleic acids.

## SPECIFIC ACTIVITY.

Only the linoleic, linolenic and arachidonic acids show activity among all the fatty acids investigated.

Are active also the esters of the inferior aliphatic alcohols, and there is the possibility that the esters capable of being hydrolized prove also to be active.

In the following table is shown the activity of the acids tested with the esters of methanol, showing their symptomatic capacity according to the tests

Acid	Efficiency in the test of the skin.	Efficiency in a test upon growth.
Arachidonic acid	I	6
Linoleic acid	II	I
Linolenic acid	1/6	1/3
Decosa-hexaenoic acid $C_{22}H_{32}O_2$ —	O	Little.
Linusic and isolinusic acid	— O	O

## IDENTIFICATION.

### CHEMISTRY:

No other methods know for essential fatty acids determination what bromo addition.

### (BIOLOGICALLY:—GROWTH OF THE RAT.)

By this process we can get to the discovery of the essential fatty acids and it can be applied as much as a curative means or prophylactically it's based on the fact that the weight of the animal goes up when administering in the young rats diet, essential fatty acids, when these animals have been subject to a diet lacking those. This process is very slow.

### THE TEST OF THE RAT'S SKIN.

It's based in the cure of the scaly aspect and dryness of the dorsal surface of the hind limbs and at the front of the ankles, the essential fatty acids can be used in local applications over the affected area of the skin, instead of administering by the digestive via.

TEST OF THE OVULATION.—It's been proved that when there is deficiency of essential fatty acids, an irregular ovulation takes place, and when this turns to normal, it shows the presence of such essential fatty acids.

PHYSIOLOGICAL FUNCTIONS:—The linoleic and linolenic acids and their simple esters, are absorbed from the intestinal tract. The linoleic acid is found invariably in all the animals subject to investigations, in the human being it is present in the fatty acids of the phospholipids and in the neuter fats. The linolenic acid is metabolized immediately after entering

the organism and the tissues do not store it unless it is given in great quantities. The arachidonic acid is the main acid not saturated in the phospholipids.

The presence of the essential fatty acids is very stubborn in the phospholipids, and that's why it requires many months for the rat to totally lose the same.

It has not been possible to prove the presence of linolenic acid in the organism, but it's biological functions have been already determined.

The linoleic and linolenic acids are converted in the organism into arachidonic acid, the organism, besides this, also synthesizes parting from the linoleic and linolenic acids, dihydro-arachidonic and decosa-penta-enoic. The way the essential fatty acids act is not very definite, in appearance they act in phosphatids and take part in the process of the utility of the fats. It's first action is the sature of fats the tissue's cells conjunctive-adipose, if then small quantities are administered of essential fatty acids, the effect can be demonstrated separately. The cells are saturated with fat and when they keep receiving essential fatty acids take place the growth and the excess of fat is eliminated.

The fatty acids not saturated in experiments "in vitro", catalyze the oxidation of the saturated fatty acids without them being affected by themselves. Besides they influence in the movement of the fats as in the utilization of the same in the or-

ganism. Experiments on rats deprived of fat in their diet, have led us to the conclusion that the essential fatty acids are not necessary for the normal maintenance of the cell but they are for the formation of new tissues.

#### SYMPTOMATOLOGY OF DEFICIENCY.

The deficiency of essential fatty acids causes a typical dermatosis in the rats, which has as a characteristic the squamosity and dryness of the skin, in a very pronounced manner in the front and hind limbs, tails and ears. Sometimes the tail presents an aspect of anulation.

In the deficiency of these fatty acids, is not present the edema, as in the cases of similar symptoms caused by deficiency of B Vitamin.

In the lack of essential fatty acids are also the lachrymal glands affected, produces irregularity in the ovulation and lesions in the kidneys and urinary tract. Also is observed deficiency in lactation; abnormal reproduction and in the young rats stops the growth and the sexual development is delayed.

In the human the deficiency of this essential fatty acids produces infantile eczema which disappears with the supplying of oils that contain unsaturated fatty acids, in these pathological cases it has been found that the fatty acids of the sanguinous serum had a significant low concentration of unsaturated compounds in comparison with healthful individuals.

On rats the Sepherd-Lin unit is the minimum quantity to keep them free of the scarcity symptoms, the maximum daily dose is 14 mg. of Methyl-Arachidonate, smaller quantities give reactions less favorable.

Burr has determined in mankind that the dietetic necessity should be 1% of the linoleic or linolenic acid as to the nourishing volume.

The requirement of arachidonic acid is of only 0.1%.

Demonstrative Table of Burr and Hansen to demonstrate the activity of purified fatty acids, in curing the deficiency of fat in small animals,

#### Positive answers

Linoleic  
Linoleic and Alcoholic.  
Linolenic.  
Arachidonic.  
Decosahexenoic. \*  
Hexahydroxystearic.

\* Not purified by cristallization, but by destillation fractional of the ester.

#### Negative answers.

All the saturated fatty acids  
Oleic.  
Elaidic.  
Erucic (13-deconsenoic)  
Ricinoleic (hydroxyleic)  
Linolelaidic.  
Linoleic 9, 11.  
A Elcoestearic (9, 11, 13-linolenic)  
Dioxidestearic.  
Tryhydroxystearic.  
Chaulmugric.

(1)—Clupanodonic (octa decatetrenoic).

(1)—This preparation was found with toxic properties.

#### THERAPY AND DOSAGE OF THE "F" VITAMIN IN THE TREATMENT OF HUMAN CANCER...

#### THERAPEUTIC USE OF THE REPTILES.

The first application I made in 1939 for the treatment of cancer, was of total tissues of scorpion (*heloderma horridum*), variety of Sonora and Sinaloa. The animal is opened and the excrement expelled, all the organs and tissues are ground and dehydrated. Dose: apply the powder locally if the cancer is accessible. Administer by oral duct from 10 to 25 grams of powder boiled in a glass of water, after each meal. The poison is inactivated in the dehydration at 80 degrees F.

This therapy I used until 1946. In Mexico D. F. I used the same process with a small lizard abundant in the plateau of the valley of Mexico commonly called "chintete" (*sceloporus spinosus*) and the lizard with collar or "tecomate" (*sceloporus torquatus*).

In 1952 I located the anticancerous principle in the liquid glycerides of the chelonians, ophidians and saurophidians and actually I am investigating those of the crocodiles and batrachians. These glycerides were extracted as much from the fats of reserve as of the tissues and organs by means of ether. I identified in these glycerides the linoleic acid in great percentages. Other investigators of the "F" Vitamin maintained before that these linoleic acid were not found present in the tissues of animals and were just to this liquid fraction of the lipids of reptile that I named reptiline. I stated precisely that the reptiline was very much in relation with the fatty acids that constitute the "F" Vitamin and developed the theory that the cancer was a syndrome of the hypovitaminosis "F" and alterations of the intestinal flora (1)

#### DOSE AND THERAPEUTIC OF THE REPTILES LIPOIDS

#### ORAL VIA

10 grams reptiline (liquid lipoids of unsaturated reptile) after each meal. Pain is relieved 5 minutes after taking the product.

Local application: in the accessible cancers the reptiline can be applied locally.

#### THERAPEUTIC OF THE "F" VITAMIN.

The fatty acids mostly employed are the linoleic and linolenic in the form of glycerides and the arachidonic acid in the form of lecithins extracted from the livers of pigs.

#### ANALGESIC EFFECT.

I.—10 grams by oral via of any oil that contains linoleic or linolenic acid in a minimum proportion of 25% of its fatty acids relieves the pain in 5 minutes.

II.—The lecithins of pig's liver, that contain arachidonic acid and linoleic, with dose of 5 grams by digestive via, relieve pain in 2 to 3 minutes, in a general way the conditions of the patient obtains a

(1) Aviles H. Proff., Vol. of the Cent. of Invest. of Med. P. and A. Dpt. of Biochem. of the Can. Reptiline, Vol. I, No. 1 Dic. 1952.

faster improvement with the use of lecithins, being demonstrated so that the anticancerous factor most powerful of the essential fatty acids is constituted by the arachidonic acid.

#### CARCINOLITIC EFFECT.

I.—The maximum dose I have employed to produce carcinolitic effects operating with glycerides with a minimum contents of 25% of linoleic or linolenic is of 100 grams daily by digestive via, dividing this dose in three parts, one after each meal. The dose being with 50 grams daily. The maximum quantity of lipoids that a healthy person can assimilate is 300 grams. The raw linseed oil, is among all the sources of "F" vitamin the one which has the best conditions, it's easy to get, it can be used in the food diet daily and contains 75% of "F" vitamin of its total volume. Raw linseed oil was used without taking away the mucilage.

II.—Treating the patient with lecithins containing arachidonic acid (15% of the total fatty acids) the curative dose by oral via is of from 25 to 50 grams daily.

In every case where the "F" Vitamin is administered in any of its forms, the dose must be taken after each meal and associate bile and pancreatic extracts, choline, metionine, inositol and vitamins of the B complex, so as to expedite the assimilation and phosphorolization of the "F" Vitamin.

The therapeutic preparations that have been mostly used is a solution made with lecithins from livers of pigs and oxen in raw linseed oil, the liquid vaseline in small quantities increases the solubility of the lecithins.

In four years of experience I have proved that the anticancerous factor discovered in reptiles is totally powerful for all types and for all the cases of cancer.

#### LOCAL THERAPEUTIC.

I.—In accesible cancers can be applied locally the glycerides that contain a minimum of 25% of "F" vitamin upon the total of fatty acids, or the lecithins that contain arachidonic acid, dissolved in raw linseed oil.

#### TREATMENT OF THE NAUSEA OF PREGNANCY AND OF THE CHRONIC ABORTION.

I.—For the treatment of these affections I have used turtle glycerides that contain 38% of linolenic acid in dose of 1 to 5 grams a day. The sardine oil of the same dose I have experimented only with positive results, in the nausea of pregnancy.

#### GENERAL NOTES.

The essential fatty acids unsaturated, free, because of their irritating actions should not be administered by digestive via. In further publications I'll inform about the clinic results in the treatment of human cancer, of the methilic esters and their salts; Metilarachidonate, Methilinoleats.

Patients of cancer should be forbidden the consumption of lipoids that contain saturated fatty acids and that of beans since these according to Summer and Dounce produce a ferment that oxidises the unsaturated fatty acids, nullifying on account of that action of "F" vitamin.

#### THE SOYA BEAN HAS "F" VITAMIN.

In order to change the pathogenic intestinal flora, the patient should be subject to a nourishment lacto-vegetarian, consuming preferably raw vegetables and milk with lactose at 30% and bacterium acidofillus.

The use of phenolphthalein is very often indicated to make constipation disappear also the applications of cold water upon the abdomen to activate the peristalsis.

Administer also cultures of normal baccillus coli "mutaflo" (1)

M. Centralbl. F. Baktenol, and Abt. Ref. Beiheft 1906, 38:98.—Massini R. Arch. f. Hygs. 1907, 61: 250) in keratinized capsules.

Any way the substitution of a cancerigenous flora for a normal flora is very slow, sometimes it is necessary, as an emergency method an intestinal clyster with a sound or administer antibiotics, preferably the sulfasuxidine (to avoid allergic reactions) upon other antibiotics that pass to the blood. Actually, is being investigated the therapeutic applications of subcutaneous injectables of lecithins with arachidonic acid, in a solution of raw oil neuter at 10% of lecithins.

#### THE "F" VITAMIN AS A PROTECTOR AGAINST ATOMIC RADIATION.

Investigators of atomic energy, have informed recently (1953) of the qualities of "F" vitamin of making resistant to the atomic radiations, the animals of experimentation.

Since this vitamin is so largely distributed in the vegetable and animal kingdom, and acquisition being so easy and economical, it's accessible to everybody, since it only costs a minimum fraction of what other products cost for similar uses. The "Cysteina", brandnew finding of the Federation of Societies of Experimental Biology, costs in the North American market four dollars a tablet, and in order to obtain an adequate protection against the radiations, it is necessary to have previous notice of an atomic bombardment, since it must be taken with an hour or hour and a half before it occurs.

The "F" vitamin without any of these inconveniences, has the big advantage that it can be of daily use adding it to the food diet and in emergency cases it can be swallowed and the skin rubbed within it for more protection.

To all these advantages of the "F" vitamin add the safety of protection it offers to those who work in investigations, atomic installations and to all those who are employed near a source of radioactivity.

In the rats, the hypoavitaminosis "F" makes them sensitive to the radiations of the ultraviolet rays of the sun, provoking dermatitis, which disappears when adding to their diet, any of the fatty acids that integrate the said vitamin.

#### THE "F" VITAMIN, A CHEAP PROTECTOR FOR THE RADIOLOGIST EXTENDS THE SURGICAL AND RADIOTHERAPIC FIELD.

The radiologists, since they are in continuous contact with radium and the "X" rays are exposed to the deadly action of the radiations, and so in order to be protected from them they must use the "F" vitamin constantly.

(1) Burkhard Krobsbekamfung 97—Neisser



I have arrived to the conclusion that the cancerous cell is radiosensitive because in its metabolism the "F" vitamin is absent which is a carcinolitic for it.

Once these problems have been made clear of the biochemistry of cancer, we can see the great utility that the "F" vitamin reports, extending the grounds of action in the radiotherapeutic field, since

when administered to the patient of cancer it offers the possibility of being able to act with "X" ray apparatus of super high voltage, without danger of damage to normal tissues that have the faculty of assimilating this vitamin being thus protected from the radiations.

The "F" vitamin in the surgical field, is of great help, since its carcinolitic action is constituted as a protector of the normal tissues, of possible metastasis and avoids at the same time the relapse of cancer.

In the market, the current price of litre of raw linseed oil with 750 grams of "F" vitamin costs about \$ 3.50 Mex. Cy. (about 0.40 U. S. Cy.)

## THE HIBERNAL FACTOR OF THE REPTILES AND THEIR THERMIC OR PINEAL EYE.

The biotine of fowls eggs when they come in contact with the adequate warmth of the animal or the incubator, stimulates the growth of the embroyd's cells and starts the organized development.

What was it that stopped the growth? The avidine, that due to its thermolabil character is destroyed by temperature leaving the biotine free.

A similar process must exist in the animal that possess the hibernial reflex, for instance the reptiles.

The history of the epiphysis or pineal gland of the reptiles, at least in the saurians, is of considerable interest because it proves the meaning of this organ, during so much time enigmatical. In fact in many saurians, the epiphysis is in close relation with an organ that has obviously the structure of an eye. In the heteria and in the ocellus lizard, where it is best developed, has the form of a closed vesicle whose front wall is dilated in a crystalline lens, while the rear is a real retina, constituted of an intricate total of superimposed cells, the most interne of which are small canes surrounded by pigments. This eye is located in the extremity of a long nervous cord (Epiphysary nerve) and goes to lodge in a hole bored in the cranial cavity, the parietal hole. So, it is found immediately upon the skin, (in the way of an eye whose eyelid does not open) lacking pigment at this level.

In the order saurians, the pineal eye and its nerve experiment a return more or less complete, they degenerate, are altered, are penetrated by conjunctive or vascular thin walls, that masks its primitive structure and abolish its sensorial functions for the vision, but, not for the changes of temperature.

Finally the eye disappears completely, and does not persist but the vascular mass, the epiphysis, reduced to an organ of lymphoid structure. It's the only part that will be found in all the vertebrates. So the epiphysis corresponds to a degenerate eye and stopped in its development.

The ample dimensions of the parietal cavity in many reptiles, leads us to believe that the pineal eye had in these animals a great functional importance. After it has done nothing but degenerate, and even in the actual types in which it is more developed, certain degenerate characteristics seem to show that its visual functions is, at least very much diminished.

For some authors, the pineal eye was of no use for vision. It might be a thermal eye. The pineal eye seems to be homologous to the cerebral eye of the tunicata, to the pigmentary stains of the aphyxo. So phylogenically it would be more antique than the lateral eyes. In the Cylostomata exists two pineal eyes.

Coming back to the hibernial reflex of the saurians, when temperature lowers at the start of winter, the ocellus lizard, the Mexican lizard called scorpion, (*heloderma horridum*) the Gila monster (*heloderma suspectum*) and others, by a thermic reflex controlled by the pineal eye it elaborates a hormone which inhibits development and every vital activity. This effect lasts all the winter period. Until the coming of the warmth makes this reflex stop and comes to activity the hypophysis with its hormones of growth and normal hypervitality. The pineal forbids the vital process, the hypophysis accelerates it. During the hibernial period, the intestinal flora is equally inhibited by this hormone and fasting.

This hormone, or factor of inhibition is stored in the reserve of fats, and all the complex has been denominated Reptiline and is constant in some animals that have hibernial reflex.

Friedman and Wendt (Sterols and related compounds. - Cambridge 1937) relate the isolation of a lipid or gray substance of the dormouse, hedgehog and other animals that possess such reflexes and this substance injected into the animals provokes narcosis, slows down the pulse, the blood pressure and the metabolism. That is, they come in the hibernial lethargy.

Is this substance the reptiline? In further investigations such will be determined.

Information received recently from Paris, in form of the promising results obtained by Dr. Henri Laborit with a new drug he has discovered and which he has named "lagarctil".

The investigations of Dr. Laborit parted from the principle that in the animals which possess the hibernial reflex, a general numb state was produced in their organisms due to the fact that the neurovegetative system was blocked automatically by this thermic reflex.

Dr. Laborit arrived then to the conclusion that it was necessary to produce artificially this phenomenon in the human being, so as to avoid the fatal effects of the "state of shock" because of a traumatism over the nervous system or neurovegetative caused by sickness or wound.

In 1948 he began his experiments in the laboratory and clinic of a drug that could at will of the doctor, block the nervous vegetative system, until he could in 1953 produce such medicine which he named "largactil" and which has been in the clinic tests, a powerful agent to block the neurovegetative system, proving also that in major surgical operations it was necessary smaller doses of anaesthesia, when administering Largactil.

But the most difficult part of this process was to be seen, to apply the artificial hibernation to human beings, refrigerating them. This was a revolutionary theory opposed completely to the established practice of giving health to the patient with "shock". The object was to make the temperature descend, diminish the speed of the sanguineous fluid and lower to a very low level the oxidizing and the metabolism. The technique employed by this investigator, in the treatment of a patient of "shock", by serious injury or sickness, is to apply to the patient an injection of Largactil, sometimes accompanied

with fenerga, petidine, etc. Each 15 minutes a new dose of Largaatil is administered to continue to block the nervous system, after 30 to 40 minutes, the patient is taken by a drowsiness, has a calm rest and does not experience pain or anguish.

Then is the refrigeration applied to the patient, which ordinarily takes place by the use of bags of ice applied on the vital parts of the body, heart, stomach, armpits, pelvis and the spinal column. In this manner the temperature may come down to 33-35 degrees C. this temperature is maintained and then can the surgeon operate with a minimum of anaesthesia and sometimes without it at all.

Taking as a base these experiments I have come to discover that the low temperature activate the analgesic effect of the "F" vitamin in a extraordinary way. As to the biochemistry of cancer it is directly related to the biochemistry of the paracolobacilo of constipation, and taking into consideration that at low temperature this pathogenic germ stops its division, it seems to be that the cancerous cell experiences the same phenomenon of mitotic divisions, the cause is that at low temperatures the metabolism of the glucose's oxidation is substituted by other metabolism. We could call this metabolism "hibernal". Consists in that in winter and in sleep prevails the oxidation of fats instead of the sugars. And of the fats those unsaturated are the ones most activated in the hibernal period.

In 1933, Filatov, oculist of the USSR developed the therapeutic of animal and vegetable ingraftment of vital lethargy provoked first by temperatures of 2 and 4 degrees C. and in vegetables by darkness. This system has been extended to the blood lymph and humors. The pains of neoplastic origin are the best therapeutic applications.

Applicated in Puebla, Mex. by Drs. Rosales and Reyes (Med. Bulletin, I. M. S. S. Pueb. Mex. Vol. II No. 28 and 29-1952)

In mankind, as in vegetable seeds that have the hibernal satdium, the Russian schools headed by Lisenko, have also made many studies and have discovered a law that is named stadial development, up to now this school has discovered thermostadium and the photostadium, and thanks to their control have transformed the agriculture making winter give crops in summer and vice versa.

Technique of activation of the "F" vitamin by means of artificial "Hibernation" for the inhibition of pain and mitotic and carcinolitic inhibition in the patients of human cancer.

The "F" vitamin must be kept between 5 and 10 degrees C. in the dark and in anaerobiosis.

#### ABDOMINAL COLD TOWEL.

A towel soaked in ice water and squeezed is put on the abdomen of the patient, it must cover all the waist, renewing the cooling each half hour.

#### INTESTINAL CLYSTER WITH SOUND.

According to the condition of the pathogenic intestinal flora an intestinal clyster with sound should be applied once or twice a week according to the intensity of constipation, using ice water.

#### COLD LOCAL APPLICATIONS.

Give locally water applications that cool the affected part.

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#### CHRONOLOGY OF THE LIPIDES INVESTIGATION IN CANCER...

1924 (Firket and Firket and Lecloux) Demonstrated that some oleates and specially iron oleate have a prohibiting influence on genesis of the tar cancer of rats.  
 1925 (Eber, Klinge and Wachter). Have insisted upon calling the attention to the activating influence of cholesterol in the beginning of the tar cancer in the rats.  
 1926 (Freund and Makiner, Bioch. Grundlagen D. Disposition f. Karzinom Wien b. Springer 1925 and Kaminer: Gg. Abh; a. d. Gesamtgebiet d. Med. Wien b. Springer 1926). Discovered that an intestinal microbe of people sick with cancer produces a protective fraction of the carcinolitic effect of normal serum. This protective fraction was identified as an oily acid dicarboxylic, not saturated. Show that the carcinolitic fraction of the normal serum is produced by the normal coli microbe and identified this fraction as an oily acid saturated dicarboxylic.

1926:39 (Maisin, Pourbaix and collaborators) Show that some greasy extracts or organs (brains, liver, spleen, pancreas) have an antiblastic effect on the genesis of cancer of the tissue of the rat, provoked by tar, the benzophireno or the methyl-colantreno. The active factors are in part contained in the ethereal extracts or filtered chloroformics a nitrogen field, without being able to affirm actually if these factors are soluble in ether or are simply torn down by the ether in the extraction process. The richest organs in inhibiting factors are the brain, the heart, the liver and the osseous marrow, although it can also be found in the other organs;  
 1927:30 (Rondoni) Demonstrates that the lipoidic extracts of the normal tissues and cancerous mixed with pig's serum increases the resistance of the rats toward tar cancer.  
 1929 (G. O. Burr and M. M. Burr.) Describe the experiments made with rats with the conclusion that a feeding ration that is extremely poor in oily acids, provokes disorders,

- functional disorders, in the growth and in the reproduction, which can be suppressed administering acids or grease containing linoleic or linolenic acid.
- 1930 (Watson and Mellanby) Demonstrated that if 12.5 or 25% of butter is added to the food of the brushed rats, an increase of 50% in the percentage of the tumors and a greater tendency towards the lung metastasis.
- 1933 (Roffo). Published a series of works towards establishing the relation existing between the accumulation of cholesterol in the tissue irradiated with ultraviolet rays and the cancer of these rays. According to this same author, the cancer is produced, in reality by products of transformation of the cholesterol by the action of the ultraviolet rays. These sub-products of cancerous origin, would be sufficiently near to the cancerous hydrocarbons. Having also to be able to produce sarcomas and adenocarcinomas of the stomach wall in rats fed with grease or cholesterol previously heated to 300 degrees C.
- 1935 (Christiani, Zeif Krebsform 1935, 43, 343) Was able to separate the liquid of the colon of people sick with cancer of the not saponifiable part, another fraction that protects the cancer of the globuline carcinolitic nucleus of the normal serum, identified by this same person as butyrate of cholesterol.
- 1934 (Evans, Lepkovsky and Murphy) Give the name of vitamine "F" to the only acid discovered in 1929 by G. O. and M. M. Burr.
- 1937 (Rowntree, Steinberg, Dorrance and Ciccone) Pretend that a great percentage of rats fed with oil of the water germ presented sarcomas of the peritoneum.
- 1937 (Amano and Tomita) The cholesterol in the hands of these authors has been shown without any effect in different types of cancers.
- 1937 (Kinoshita, Nakahara, Mori and Fujiwara) Show that the olive oil added to a 3% dosis of the food regimen, does not have any effect on cancers provoked by the nitrogene derivations in rats.
- 1937 (Friedman and Wendt) Separated from the animal grease that has the faculty of developing the phenomenon called "hibernating" (doormouse, hedgehog, and some snakes, etc.) a "brown" substance which when shot into the animals produces narcosis, the metabolism decreases, as well as lowers the blood pressure and the pulse.
- 1939 (Maison, Pourbaix and Ceulemans) Prove that the greases extracted from the barley grains, have a light activating effect on the cancers by benzopireno in the rat.
- 1939 (Baumann in colaberation with Jacobi and Rush) Show that the animals that ate from 15 to 20% of grease in their diet present tissue tumors by touching it with several hydrocarbonics (methilcolantreno, benzopireno, dibenzotraceno) a month before approximately than those that did not receive any grease.
- 1939 (Baumann and Rush) Continuing the above investigation obtained the same results with cancer provoked by ultraviolet rays in the rat.
- 1939 (Baumann and Rush) Confirm the antiblastic effects of the brain extract with the cancers by ultraviolet rays in the rat.
- 1939 (Baumann, Jacobi and Rush) Inform that not only is it necessary to separate the different greases used but also the type of tumor studied and in both aspects differences should be established to be quite evident. Therefore the subcutaneous sarcomas provoked by the benzopireno, the dibenzotraceno or the methilcolantren, do not appear to be influenced by the greases, at least by those tried by the authors and, nevertheless, are active with the tissue cancer.
- 1939 (Morigami). Demonstrates the inhibiting power of the oil produced by the rice husk, in the liver cancers provoked by derivatives of nitrogen.
- 1939 (Baumann and Rush) Deny the good action of a rich regimen in cholesterol on the cancer genesis by ultraviolet rays in the rat and also the good influence of the colestereina on the development of the papiloma de Shope in the rabbit, and also show that the cholesterol at 2% added to the food for the rats which have been submitted to the action of the o-aminoazotoluol does not alter the frequency of the liver tumor.
- 1939 (Domagk) Was able to produce glandular hyperplasia in rats fed during a year with rice and olive oil, even though this investigator does not indicate if the oil was colored, which has great importance due to the many colored oils with p-dime-tilaminoazobenzol (lard yellow)
- 1939 (Prof. Humberto Avilés) Using the tissues of a poisonous Mexican scorpion (*heloderma horridus*) obtained, that the pains caused by a human cancerous ulcer (*epitelioma*) disappear, after 5 minutes of having administered by the digestive tract, meat of that animal. Obtaining afterwards the complete recovery with this treatment and the local application of the tissues of the same animal. Having notices at the same time the disappearance of a chronic constipation.
- 1940 (. Ishihara) Has described an hormone produced from the umbilical cord and from eggs of birds, fish reptiles that have curatives effects on the cancerous celule. ("Hormones" Prof. Dr. A. Santos Ruiz, Madrid 1940 Pag. 290).
- 1941 (Gyorgy, Polyng and Goldblatt) Prove that "Inovitol" the great quantities of linoleic acid (vitamine "F") destroy the lard yellow, considered as cancerigene.
- 1941 (Beck and Peacock) Were not able to produce glandular tumors in the stomach of rats fed 436 days with fats and edible oils submitted to the solar action.
- 1941 (Miller, Miner, Rush and Beaumann) Prove that there are some greases that do not seem to have any effect on nitrogen cancers, in these is considered the cod liver oil, when 1 or 2% is added to the food regimen.
- 1941 (Kensler and colaboradores) Find identic effect with corn oil.
- 1941 (Sugiura) Shows that the wheat germ oil produces the same effects.
- 1941 (Miller and colaboradores) Identic results were obtained with cotton oil, butter and vegetable oil partially nitrogened, added to the 20 to 30% dosis.
- 1941 (Lavik and Baumann) Confirm the experiences made by Baumann, Jacobi and Rush in 1939, on the need of separating not only

the fats used but also the studied tumor, due to the subcutaneous sarcomas provoked by the benzopireno, the dibenzoantraceno or the methylcolantreno, do not seem to be influenced by the fats tried by the authors but nevertheless are active when in front of tissue cancers.

- 1941 (Ritcher, Drunkev and Vierthaler, Naturwissen, 29, 63) Separate the product of transformation of the desoxicolic acid by the bacillus of coli of a person sick with cancer, cancerige. It is identified as the colantreno.
- 1942 (Tannebaum) Verifies the demonstrations made by Baumann in relation to the need of separating the greases and the studied tumors.
- 1942 (Tannebaum) Proves that the animals that eat in their diet from 15 to 20% of fats present the tissue tumors provoked by touching it with benzopireno, appear approximately a month before those that did not receive any grease.
- 1943 (Lavik and Baumann) Suppose that the oil acids of the vegetable grease hydrogenated will be responsible for the activating effects of the cancers, as these same authors have already proved that the partial hydrogenated cotton greases are frankly activating as well as the laureate of ethyl, while the glicerol and the not sapofiable are completely inactive.
- 1943 (Kirby) failed when trying to produce stomach cancers with heated colessterol, to 270.300 degrees C. for half an hour in the air and adding 20 miligrams to the daily food ration, all this during two years.
- 1943 (Lavik an Baumann) Have pretended that if a balance is established as to heat (caloric), certain problastic effects disappear due to these facts.
- 1944 (Miller, Kline, Rush and Baumann) Using a definite grease diet, the genesis can be influenced as well as the evolution of the cancers of the liver of the rat, provoked by the ortoamidoazotoulol of by the dimetilaminoazobenzol. The presence of a 5% of coconut oil, which considerably retards the production of cancer of the liver by the p-dimetilaminoazobenzol.
- 1945 (Chevalier, Denoit and Samuel) Verified that the oil from an animal (cobaya) cancer of the tissue resisting animal, provoked by hydrocarbon produces "in vitro" a more rapid neutralization of the hydrocarbons, than the greases or fats of rats or mice which are receptive animals.
- 1946 (Hansen and Burr) At the request of the Council on Foods and Nutrition of the American Medical Association, declare: "In view of the clinic observations, very extensively made on human beings, without leaving any evidence to indicate that an omittal of oily acids essentials, produce disorders in the growth, haematuria injury in the tissues irregularities in the reproduction and the nursing, sterility which abnormally are attributed to the diet which does not have any linoleic or araquidonic acid in small practice animals." Against this conclusion in 1953 Prof. Humberto Aviles, given glicerides of reptiles which contain linolenic acid in a 40% was able to suppress the vomit of pregnancy in most cases and confirms

that the linolenic acid stops miscarriage, chronic in some human beings. Confirms also that the linolenic acid stops the pain and produces carcinolisis in the human being, developing a theory that cancer is due to a hypovitaminosis "F". Reaching the conclusion that people sick with cancer have lost their faculty to synthetize, starting from the linolenic acid, the more potent fractions of vitamin "F" which are linolenic acid and araquidonic. This loss of function is due fundamentally to a substitution of the coli bacillus, by microbes III and IV of Nissle which produce the following substances to help cure cancer: escatol, indol, colantrenol butirate of colestrile and carcinolimic acide of Freund. Also, shows statistically that 99% of the sick of cancer have constipation before the neoplasia appears, and develops a method of diagnosis based on the intensity of constipation.

- 1950 (J. H. Maisin of the Lovaina Institute, his book "El Cancer" Pag. 119 and 251) "Also a derivative of the desoxicolic acid, the norcoleno that by itself is not a help to cure cancer it can transform itself in colantreno by the actio of certain coli bacillus."
- 1952 (Prof. Humberto Avilés, "Boletín de Información del Centro de investigaciones de Plantas y Animales Medicinales. Departamento de Bioquímica del Cáncer".) Confirms that the lipoids obtained from the reptiles (chelonians, crocodiles etc.) have inhibiting proprieties of the cancer of the human being, and after suppressing the pam of the same, this lipoid factor is named Reptiline.
- 1952 (Prof. Humberto Avilés) March. - Discovers these same anticancerous lipoids in the toad (bufus vulgaris)
- 1953 (Prof. Humberto Aviles). January - Was able to separate from the lipoids of the snakes the anticancerous fraction and identifies it as the linolenic acid, one of the oily acids, most potent of the components of the vitamin "F", the araquidonic acid.
- 1953 (Prof. Humberto Avilés) February - Discovers that the lipoids of the suprarenal capsules, can suppress the pain in the human being sick with cancer after 5 minutes of having administered it by the digestive tract, identifying this fraction against pain as an oily acid, the strongest of the components of vitamin "F" the araquidonic acid.
- 1953 (Prof. Humberto Avilés). July. Taking as a base the paralellism between the ajitipain action and the carcinolitic effect, using the linseed oil in human beings sick with cancer in dose of 10 grams orally, suppressing the pain after 5 minutes of having administered it. This is due to the presence of the linolenic acid in a proportion of 40% in the crude linseed oil. Developing a theory that cancer constitutes a chart of hypovitaminosis "F" Discovers the same effect although slower in the sesame oil, by its components of vitamin "F" in a linoleic acid form (38.5%). But as there is very much of this in the corn, wheat, oil, etc., components of normal nutrition. The linoleic acid is not enough to protect the human being from cancerization if there is constipation, as due to this the human being loses the faculty to synthetize starting from the lino-



leic, the linolenic that shows a potency in inhibition more accentuated not only of pain but over the development of cancer, until it reaches the araquidonic acid which is the most potent of the acids (oily acids) which constitutes the vitamin "B". Being able to consider the linoleic and linolenic as precursors. In rats the araquidonic acid gives the best results in dosis of 14 mg. daily. To produce the same effect bigger dosis are needed in the first linoleics and linolenics: 50 to 100 mg. daily. These quantities are for the classic symptoms of the avitaminosis "F". When growth stops, dermatosis, nursing which is irregular in rats. The therapeutic form which has given better clinic results is the administering of lecithines to the liver suprarenales of the pig, the cow which contains from 15 to 20% of the araquidonic acid of the total of the oily acids.

1953

1953

(Dr. Leslie R. Bennet, de la Univ. de los Angeles Cal. U.S.A.) Finds a greasy substance in the thin intestines of the rats and mice which could be a protection against cancer (cancer of the intestine is very rare).

#### EXPERIMENTAL POSTULATES WHICH CONFIRM THAT CONSTIPATION PARACOLIBACILLUS IS THE UNIVERSAL AGENT OF CANCER.

To prove my theory, that the universal cause of cancer is the colibacillus of constipation, I will base my postulates to the minimum that a theory must be accepted. These postulates were developed by Dr. Charles Oberling in a series of conferences in the Cancer Institute in the Medicine Faculty of Paris; and Dr. Oberling states:

"Due to what we know, we can say that cancer is also a highly conditioned disease. Many factors must be united to produce it. But which is the main one? This factor evidently must answer to the following postulates:

- 1.—It must be cancerigenous.
- 2.—DEMONSTRATE ITS PRESENCE IN ALL THE CANCERS (I would add, even in the precancerous state.)
- 3.—Compatible interyention with that of the other factors recognized as cancerous and explains its action.

First Postulate. It must be

The cancerigenous substances produced by the colibacillus of constipation are: The Indol, Escatol, Butirate of Colesterile, Carcinomic Acid of Freund and the most cancerigenous one of all" Colantreno.

I.—Indol. Bungler has been able, with chronic intoxication with indol, to produce leukemia and lymphosarcomas (Malign tumor diagnostique" Prof. Dr. H. Auler, Berlin, Germany. Pag: 17-1947.

II.—Carrel injected into the pectoral muscle of the hens an embryonic mixture or a mixture of plancenta of a healthy animal, mixed with diluted arsenic (1:125,000 to 1:150,000) and with Indol (1:1,250 to 1:1,500. Rapidly in the places where it was injected, the sarcomas came out, transmittable by filtering. The animals died within the 17 to 35 days.

Good results were also obtained from the scatol, another metabolism product of the colibacillus. These tumors were of the same histological type of the Rous sarcoma. The number of animals was of 16.

When the rats are given an injection of extracts of this substance, they show great resistance to the transplanted cancers, on the other hand when they do not receive these injections they immediately contract the cancer. This substance derives from the microsomas of the intestinal celules but they have not yet been defined exactly as to the chemical nature of the new substance. (July) Dr. Henri Laborit. Started in 1948 investigations derived from the "hibernation" of certain animals and plants, reaching the culmination of his experiments when applying the "Largactil" in human beings. This product blocks the nervous neurovegetative system, makes the temperature descend as well as the metabolism and the oxidation.

Dr. Laborit has used it in human beings sick with cancer, in operations and in premature babies. Produces a narcosis when the sick person is subjected to the artificial hibernation, making the temperature descend to 33.35 degrees C. and permits the intervention of surgery with a minimum or with a total absence of anesthesia.

III.—Freund and Kaminer in Germany (Freund-Kaminer Bioch. Grundlagen d iDposition F. Karzioma Wien b, Springer 1925 and Kaminer: Gg Abh. a. a. d. Gesamtgebiet d. Med. Wien b. Springer 1926. Biochemie des Karzinoms) have been able to separate an intestinal carcinomatosis intestinal acid produced by the colibacillus of the sick of cancer. This acid protects the cancerous cell of the carcinolitic fraction of the normal serum.

This protective fraction of the cancer has been identified in the blood in the form of a nucleus of globuline with great contents of carbon hydrates. The active part of the globuline nucleus looks to be, as advised by Freund, an oily dicarboxylic acid, non saturated. The carcinolitic fraction of the serum of sick people has its origin in the normal intestinal flora.

The carcinolitic part is constituted by an oily dicarboxylic saturated acid.

The normal globulin, mixed with cancerous globulin (a strong concentration) is transformed to abnormal.

IV.—Christina (Zeit Krebsform, 1935, 43.343) has separated also the liquid of the colon in people sick with cancer, of the non saponifiable part, a fraction that protects the cell, the cancerous cell of the carcinolitic action of the normal serum. Has identified the active part that is the butirate of colesterile.

V.—Colantreno: Richter, Drunkney and Vierthaler (Naturwissen, 1941, 29.63) separated from the transformation product of the desoxicolalic acid, by the B. Colli of a person sick with cancer a cancerigene.

#### COLANTRENO.

Prof. J. H. Maisin of the Lovaina Institute, Belgium (pags. 119 and 251 of his book "El Cancer" 1950,) says: "Also a derivant of the desoxicolalic acid, the norcofene that by itself is not cancerigene, can be transformed in colantreno by the action of certain colibacillus, microbes which are habitues of the intestine. Thus understand the importance and in-

terest of these discoveries for the clearing of the etiology of cancer. It is logical to suppose that in certain conditions (constipation, I affirm) pathological conditions, accompanied with alterations of the metabolism the cancerigenes which are composed at the expense of the colantreno, it has been able to prepare some derivatives of variable activity. Of these the 20 methylcolantreno is one of the most active ones with the 3.4 benzopirene and the 9.10 dimethyl-bezantraceno".

This group of methyls is not of great importance as the colantreno is not practically as active as the 20 methylcolantreno.

It is known that the cancerigenous metabolize in the interior of the organism partially transforming in phenolitic derivant which are not cancerigenes.

But due to the chronic intoxication produced by constipation, present in 99% of all people sick with cancer, the hepatic barrier is destroyed and thus surges cancer.

The first postulate, **MUST BE CANCERIGEN.** IS done. The colibacillus not only produces cancerigenes substances but also protectors of cancer and destroyers of the hepatic barrier of the endotelial system.

**THE SECOND POSTULATE:** The factor should be present in all cancers.

This postulate is amply developed in the first exposition, there is only to add that it must be taken into consideration, that the fauna (parasites) of the intestinal, acquires the quality of cancerigene vectos, according to the intestinal flora in which it lives, as these parasites are cancerigenous by nature, and increase in their virulence and reproduction in the ambient of the universal factor of the cancer:

**THE COLIBACILLUS OF CONSTIPATION.**

As to the exceptism which existed in the above, on the impossibility of finding colantreno in the organism, as to it's synthesis the temperatures required are very high, it has disappeared. **THE B. COLI PRODUCES COLANTRENO.**

To confirm my theory that the universal agent of the cancer is B. Coli, I am adding this other postulate.

**WHEN THE ETIOLOGICAL AGENT DISAPPEARS A BETTERMENT OR COMPLETE CURE OF CANCER MUST FOLLOW.**

Let us see: Whether with radium reptilina or any other method, there is no betterment or cure if the colibacillus of constipation does not disappear. The statistics prove the above.

If the colibacillus of constipation appears again, so does return cancer.

Extreme statistics have showned that in the cases of cancer, in a great percentage has existed a clinical pre-cancerouse state, constipation.

#### THERAPEUTIC POSTULATE.

The administrations of podofilina and colchicina (this last one is poisonous at a curative dosis) produce betterment by the action that is has over constipation and because they inhibit growth of the carcinoma, but their activity lasts a very short time.

On the other hand the Reptilina (obtained from the snakes) attacks cancer, by the polietilenic acid it contains has the quality to produce peroxides that are mortal to the coli bacillus and by being these same laxative acids, that make constipation disappear and specially for the heredo-plastic quality. Intramuscularly injected in dosis of 5 c.c.

or taken orally 10 c.c. they suppres pain in 5 minutes. Does not harm and does not create habit; its not habit forming.

#### CONSTIPATION AS CAUSE AND PREVENTION, DIAGNOSIS AND FORECAST OF CANCER.

It has been proved constipation exists before cancer appears and that of 7,715 sick persons of cancer, examined in the lapse of 15 years, 99% of these had had constipation before cancer.

Diagnosis of cancer by biopsy	2834
Constipated	2655
Persons sick with cancer clinically diagnosed	4981
Constipated	4163

Of the 7,815 sick of cancer of all classes, 1907 did not have constipation at the moment of finding or acquiring cancer, but after a more rigorous test, 50% had benign constipation and another 25% remembered that they had had constipation. This group of 1,907, with the doubt of constipation, 90% had benign ulcers and tumors. In all of these sick people the malignity of the tumors was parallel to the intensity of constipation.

From the therapeutical point of view, it could be observed that the radical cures were parallel to the radical cure of constipation, using as a therapeutical resource not radium but reptilina. This effect of the Reptilina on constipation increases with a vegetarian diet.

The paracolibacillus of constipation are types III and IV of Nessel (Klin, Woche, 35, 1456, 1932)

The advantages of the method of diagnosis based on the intensity of constipation are extraordinarily superior for the following reasons.

#### CONSTIPATION METHOD

- 1.—The pre-cancerous state can be diagnosed precociously.
- 2.—It is both for internal and external cancers.
- 3.—By its simplicity it is easy to practice and does not need specialization or special equipment.
- 4.—Constipation serves as a method of diagnosis not only as a method, but also as a prevention.
- 5.—The constipation method, does not hurt, does not do any injury and does not embarrass the patient.
- 6.—Also it serves as a preventive method and diagnosis, the constipation method is deeper as to forecasting, after a tumor is destroyed. It can also forecast the existance of internal metastasis or if the destroyed tumor has left any vestige in the cells.

#### METHOD OF BIOPSY

- 1.—Can only serve as diagnosis method when cancer has already appeared.
- 2.—It is only possible to practice it in external or accessible cancer that can be cut or punctured.
- 3.—The biopsy requires an experienced specialist and special equipment.
- 4.—Biopsy serves only as diagnostic method.
- 5.—When making a cut of a tumor or ulcer, there is the danger of reviving cancer or producing metastasis. Also there is the factor pain and not only that, but it also embarrasses the patient and therefore the reason why so many patients take too long to ask for a biopsy.
- 6.—The biopsy method, once the tumor is destroyed cannot define whether there is a metastasis or if there still are malign cells where the tumor was.

## OTHER THERAPEUTIC APPLICATIONS OF THE LECITHINS WITH VITAMIN "F"

The lecithin, one of most important elements in the forming of the most delicate tissues (brains, nerves, liver, heart, suprarenals, etc.) offers an ample field in therapy: the great faculty that it has to adapt to all the tissues, and the quality of being perfectly assimilable changes it to a medicine which should be used as a regenerator in all the cases of insufficiency in the organism, whatever the origin. It is an auxiliary that opens ample fields of action in organotherapy, and it's a pity sorry that it is not used any more, the cause of this, I believe is, that the lecithin did not obtain the brilliant results were expected, this failure was due, without any doubt to the administration of very small dosis which did not satisfy the needs of the organs to which it was destined, and most of the time they used owolecithin, that in comparison with the lecithins of the liver of the pig and bull, is very poor in araquidonic acid, the most potent of the oily acids not saturated which can be found in vitamin "F".

**PHYSIOLOGICAL ACTION.**—The lecithins give to all the tissues of the organism the phosphorous needed, having also the plastic quality to be able to adapt themselves to all of them, and it has also a

selective special action that stimulates the protoplasm of the cell. Its action develops mainly regulating the exchange of phosphorous and nitrogene, helping also to assimilate the useful elements in the tissues, giving as a result a stimulus in the general activity of the organism which then causes a general increase in the body of the sick person, a sensation of potence and welfare, the increase in appetite and the power to digest, increasing the proportion in the hemoglobin, specially of the blood.

## SOME THERAPEUTICAL APPLICATIONS, OTHERS THAN IN CANCER.

It is indicated in all the clinic states in which the elimination of phosphorous by urine has been increased; in diabetes, tuberculosis (when in the first state) spinal-brain affections, raquitism, etc.

**DOSIS.**—Using liver lecithin of the pig or the bull (17% of araquidonic acid on the total of oily acids) from 15 to 25 grams are needed daily for the treatment that requires organic regeneration or reposition of lost phosphorous. The suprarenal lecithin have a 20% of araquidonic acid. The lecithin, when obtained at very low temperatures is oxidized, but even using old lecithin, positive results are obtained, increasing the dosis.

Special Reprint 12-53

Reprinted By

LEE FOUNDATION FOR NUTRITIONAL RESEARCH

Milwaukee 3, Wisconsin

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