The Journal of Hormone Therapy

A Journal of Advanced Science in Physiology, Diagnosis and Therapy based on Endocrine and hormone Physiology.

Adrenal Issue

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ADRENAL ISSUE

"Strength and Endurance Depend Upon Adrenal Hormone Activity"

JUNE-JULY 1932

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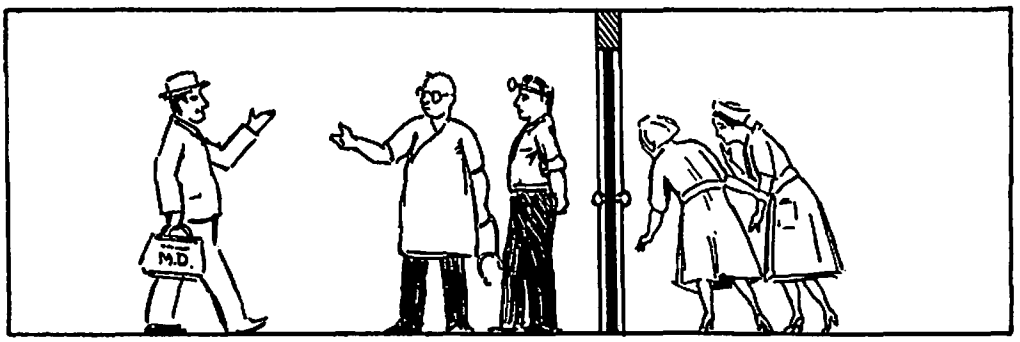
LISTENING IN ON THE PROFESSION



A scene on the convention floor of the State Society, where Dr. Dare has been hailed before the profession on a charge of unorthodox practice.

Dr. Norton, President of the Society: "Members and Fellows of this Society, I am in the unenviable position of having to read a charge against one of our members. I don't know when anything has so hurt my feelings as this charge which is brought against our member, Dr. Dare. Having known the doctor for several years and living in the same city, I would greatly prefer to appoint a member pro tem in this case to conduct this hearing." (Looking over the members, he turns to a doctor sitting over to his right and addresses him.) "Dr. Connor, will you kindly act as president of this Society while this case is being heard?" (Dr. Connor rises to his feet and walks over to the platform and takes the presidential chair.)

Dr. Norton walks over a few feet from the table and sits down in a chair on the platform.

Dr. Connor: Rapping for order. "Doctors, come to order, this is not a place for gossip or discussion between the members. Anything that is to be said here is to be addressed to the chair."

Quiet falls upon the convention, Dr. Dare can be seen seated pretty well toward the rear.

Dr. Connor: "Is Dr. Dare in the convention hall?"

Dr. Dare: Rising. "I am Sir."

Dr. Connor: "Will you kindly come forward?"

Dr. Dare marches forward with a military step as he did while leading the boys over the trenches in France, while serving as Captain.

Dr. Connor: "It is with regret that I must read a charge against you before this Society."

Dr. Dare: "I am ready to hear it."

Dr. Connor: Picks up paper and reads as follows: "Dr. J. B. Dare, you are herewith charged with use of methods in the practice of medicine that have not been approved by this Society, and which members of this Society have branded as unorthodox practice—Namely: Hormone Therapy. Are you guilty or not guilty of this charge?"

Dr. Dare: "Yes and No."

Dr. Connor: Raising his head and looking over the convention, "Doctors, you have heard Dr. Dare's reply, 'Yes, and no,' to the charges."

Three or four doctors spring to their feet at once, and all start talking excitedly. Dr. Connor raps for order.

Dr. Connor: "Doctors! Doctors! One at a time."

Dr. Brown: "Mr. President, we would like an explanation of those charges, how they came about, and what it is all about. I haven't heard a thing about this, and I have known Dr. Dare for 15 years."

Dr. Connor: "Doctors, you have heard the request of Dr. Brown, what are your wishes?"

Dr. Frank: Springing to his feet. "Mr. President, I move that we have a complete airing of those charges, let the one who preferred the charges come forward. Then let Dr. Dare defend himself."

Dr. Smith stands up and seconds the motion.

Dr. Connor: "It has been moved and seconded that the charges preferred against Dr. Dare be brought up for debate by the Doctor who made the charges. Let Dr. Dare be given an opportunity to defend himself. We are ready for questions. All who are in favor of this motion signify by saying aye."

Two thirds of the convention: "Aye."

Dr. Connor: "Dr. Norton, you have preferred these charges against Dr. Dare, will you kindly step up and explain the matter?"

Dr. Norton: Stepping forward rather nervously. "Yes, it is easily explained. Dr. Dare has been resorting to unfair, unprofessional, unethical practice. He has been using methods in his practice that have not been accepted or indorsed by this Society, or any other Society."

Dr. Dare: "Mr. President, just a moment. It is regrettable that I am compelled to state that Dr. Norton has stated an untruth. As far as I know, the therapy I am using, that is to say, Hormone Therapy, has not been indorsed by this Society. But it has been indorsed by the American Endocrinological Association which is the only high official organi-

zation in the United States dealing with the science and art of Endrocrine and Hormone physiology and Therapy."

Dr. Norton: "I don't believe that there is any virtue in Hormone Therapy, and therefore I ask that this Society refuse to recognize any such therapy, suspend any member who is guilty of using it. This applies to Dr. Dare."

Dr. Brown: Rising to his feet and interrupting. "Mr. President."

President: "Dr. Brown."

Dr. Brown: "I would like to have Dr. Norton explain to this Society what a Hormone is, so that we will be in a better position to know how to act."

Dr. Connor: "Dr. Norton, will you explain to this Society what a Hormone is? It seems that the Society is inclined to look into the matter."

Dr. Norton: "Mr. President and members: I don't think that a Hormone is anything but quackery. If it had been anything that had any merit to it, it would have been indorsed by the profession long ago."

Dr. Jones: Rising to his feet. "Mr. President."

Dr. Connor: "Dr. Jones."

Dr. Jones: "I don't believe the members of this Society are satisfied with such an explanation. In my opinion it is no explanation at all. We don't know whether he is talking about an airplane or a football."

Dr. Connor: "Dr. Norton, will you kindly explain to the members of this convention what a Hormone is, and what it is generally all about?"

Dr. Norton: "Mr. President and Members: I have never investigated into the matter of a Hormone. I have heard it talked about, and I am not interested in it at all, for one reason, and that reason should be sufficient for any ethical physician. It hasn't come to me through the proper channels. I have written to the higher-ups, and I get nothing favorable. After all, our Society is our Society, and we must be loyal to the rules and regulations of the Society whether it be good, bad, or indifferent." (Dr. Norton sits down.)

Dr. Connor: "Dr. Dare, would you favor us with an explanation? At least we would like to have you put up a defense for yourself. I would very much dislike to see you suspended."

Dr. Dare: "Mr. President and Members: When I first was invited to listen in on a lecture on Scientific Endrocrinology, I was perhaps as skeptical as any physician, thinking that the lecturer had something up his sleeve, but I was curious to hear what he had to say. After listening for two hours, I commenced to think that there must be someone who is really doing something. I attended several more lectures, then I was sold on Scientific Endocrinology, inasmuch as it is dealing with basic science of life."

Dr. Norton: "As yet, we have not been told what Hormone Therapy is."

Dr. Dare: "Briefly, I will state—It is the art and science of supplying the Hormone deficiency or deficiencies found in the system which is responsible for pathological physiology. When these deficiencies are supplied, they will pick up the various chemical elements they have an affinity for; forming biochemic units of same and restoring metabolism to normal, both anabolism and catabolism. This is a method of correcting pathological physiology. Without pathological physiology, there could be no ailment of any kind."

Dr. Norton: "You have not told us what a Hormone is."

Dr. Dare: "A Hormone is a complex single unit composed of an affinity group of Endocrines in proportion to their activation in the system. I am now talking of physiology or a physiological Hormone. A therapeutic Hormone is exactly the same as a physiological Hormone, with the exception that it is in proportion to the activation in the NORMAL system."

Dr. Norton: "In what classes of disease would Hormone Therapy be indicated?"

Dr. Dare: "It is not indicated in any class of disease as a disease. But Hormone Therapy is indicated in every condition that is below par or distorted. As I stated before, an individual could not have an ailment of any kind without having pathological physiology. And Doctors, pathological physiology is merely the lack of normal function of the Endocrine system in picking up the normal amount of the various chemical elements that comprise mankind. Therefore, disfunction and distorted metabolism. In the wake of this, various kinds of ailments will follow in proportion to pathological physiology depending wholly upon what Hormone or Hormones become deficient."

Dr. Norton: "I object very much to quackery as practiced by Dr. Dare. I have a letter here (shows letter to President and Members) written by Dr. Dare to a patient stating that he feels positive that he can correct her condition without surgery. Gentlemen, you know that I am a surgeon, and I feel that I know my business. This is a case of uterine inertia in a woman 36 years old with a menstrual flow of 12 to 14 days every month. She is weak, exhausted, severe headaches, nervous, in bed most of the time. Such a misleading statement as Dr. Dare makes on this case—I call quackery."

Dr. Dare: "Dr. Norton, you may call this quackery, but I would like to know which is the quackery.

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EDITORIAL

Who Is Who and Why: The Profession Who Render Their Services or the Public who Pay the Bills

Ever since the beginning of time, the masses have been dictated to by the few who held control because of a superior mental capacity. Therefore, they dictated their policies and terms. The kings would issue their order as to what their subjects should do and also what remuneration they were to receive for their services. This was practiced not only by kings, but by priests, merchants, and all who employed the services of others. This autocratic condition existed for thousands of years.

The masses were never consulted as to the remuneration they were to receive or the amount of service they were to render until this last century when the working classes commenced organizing for the purpose of attempting to get a fair remuneration for services rendered. This met with vigorous opposition even to the extent of calling on the police to stem the onward march of the public in their efforts to have something to say in regard to the remuneration they were to receive for their services.

At the present time, there is still a contention between the man who renders service and the man who pays the bill. It has always been in the past, that the man who pays for services dictates as to what the service is to be. It is agreed the world over that when a man is employed, he must expect to do the work as the employer wants it done. The employer will dictate what he will pay for the services, and it is then the privilege of the employee to accept or refuse.

Since the days of organized labor have been firmly entrenched, they dictate the price to be paid for their services. The employer will not merely state the kind of service he wishes, but cannot dictate the price as that belongs to the man who gives the service. This produces a rather fair balance between employer and employee. It used to be that a merchant could dictate the price on products that were sold to him, and he would likewise dictate the price of the goods he would sell.

The great question before the profession today is, shall the public know or shall they not know anything about the service they are paying for? In other words, have the public any right to know what they are paying their money for: Or is it better that the profession hold aloof and not inform the public on matters pertaining to their health, disease, pathological physiology, and etiological factors responsible for pathological physiology. It may be better that we move along the lines of—"What you don't know won't hurt you," make no attempt to enlighten the public, or let them know that which would be of the utmost value to their health.

Should the public be educated by the profession so that they may have a fair knowledge of what to do in order to maintain health, or a fair knowledge of what to expect when they are sick? If the public had this knowledge, would they attempt to barter with the profession as one would shop around town for a bargain?

Today, the public is wholly in the dark as to what really constitutes an ailment or a disease of any kind, likewise completely in the dark as to methods of removing or correcting the condition. Their conception of therapy is so vague that they are more apt to injure themselves than benefit by what they attempt to do as far as domestic remedies are concerned. Furthermore, they have no conception as to whether the procedure undertaken by a physician is right or wrong. They may go to one physician and he will make a diagnosis, outline therapy and prognosis, likewise what the price of his services would be. The patient may call on another physician and receive an altogether different diagnosis, a different therapy, and be at a loss as to know what to do. This patient may call on several physicians, and receive that many different diagnoses, and as many different methods of therapy.

The patient would now have to use his own judgment as to which doctor was right and where he should go. This would resolve itself most likely, into the personality of the doctor and his sales ability in putting himself across to the patient. Or, perhaps, if the patient was financially embarrassed, he might go to the doctor who quoted the lowest price.

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Such a condition becomes grossly unfair to the patient, and perhaps just as unfair to the doctor.

This may have been a case in which surgery had been advised by one doctor whose practice is that of surgery. Another doctor may have advised some other method of treatment, because he was not a surgeon, and was specializing along some other line which perhaps would have rendered a perfect cure or correction without surgery. Inasmuch as the patient had no conception as to what ought to be done, he was at the mercy of one or the other. We take it that this mercy would be to his own advantage inasmuch as the profession is honorable and conscientious and would not do anything that would be improper. Nevertheless, it remains with the patient. One highly esteemed doctor said, "No surgery," and another one with an equal reputation advised surgery.

Here comes the vital question. Should the public be sufficiently educated in regard to physiology, pathological physiology, anatomical pathology, so as to have a fair understanding of what is going wrong and what should be done? (Not so much in how to do it, because that would require years of time to acquire the technique and science.) We feel that there would be far better cooperation between the profession and the public, if the public had an inside knowledge as to what should be done and the manner in which it should be done. There would be less shopping around in the profession, and there would be less room for quackery.

That the public is at a loss as to know what to do, there can be no doubt. As we check over the profession throughout the entire country, we find many, yes, very many, who misrepresent their ability to the public; with their science, their literature, and in various manners. It is true that a physician may treat his patient in any way that he sees fit. If he is a surgeon, he may treat his patient osteopathically, or give internal medicine, hydro-therapy, electro-therapy, or any other kind of therapy. Whether he is competent to this or not, he is qualified legally, though he may never have taken a course in any of these special therapies. Therefore, it would be extremely profitable to the public if they would know how to judge a physician's ability. We feel that the public should know the ability of a physician before they contract any work done by him or pay him.

Since the beginning, the profession have kept the public in the dark in regard to disease or therapy. They have dictated their method of service, likewise dictated the price of same, the public having no voice in the matter except to pay the bills. This is certainly unfair to the public. We feel that there should be an educational campaign put on by the profession so as to acquaint the public with physiology, both normal and abnormal, disease and anatomical pathology, and its influence upon the system. Likewise the nature of resistance to bacteria as well as how to produce a condition in the system that would not tolerate the development of bacteria. This would aid materially in preventive medicine. The public would then become fair judges of what to do, what physician to call, and what to expect of the physician in return for the money paid for services.

We think a campaign of this kind would be of utmost value to every conscientious physician in the country. Such a campaign should be sponsored by the profession, and the public invited to such lectures. These lectures should be given by physicians who are competent and qualified to deliver an intelligent program to the public. This would serve to guide the public to reputable, qualified physicians, that they may know who is who and why in the profession, and avoid being lured by quacks who set themselves up as specialists in this, that, or the other thing.

FOURTH AND FIFTH INSTALLMENTS OF COMPLIMENTARY COURSE . By CHICAGO COLLEGE OF ENDOCRINE THERAPY [Western Branch]

THE INFLUENCE OF THE OOPHORON ON THE PINEAL

It is through the influence of the Oophoron Hormone at puberty that the activation of the Pineal is produced. If the Oophoron Hormone is sufficiently strong, it will stimulate activity of the secretory cells of the Pineal gland, which in turn through its influence controls the development of the sex organs. Therefore, a strong Oophoron exchange is necessary for a normal development of the sex organs in female.

The Pineal gland seemingly lies dormant until the influence of the Oophoron Hormone's stimulation at puberty. At this time, it becomes active and remains active until maturity when it recedes and secretes only a sufficient amount to give to the offspring at conception a normal Pineal exchange for the development of a relatively normal Pineal gland.

The activity of the Pineal Hormone is noted at puberty inasmuch as it develops both the par-Oophoron and the Oophoron to normal size and function: thus producing a normal ovalation with a normal sized corpus luteum which influences a normal menstruation. Its influence is also noted at this time upon the development of the uterus from an infantile to a normal sized organ. The voice changes at this time from the high pitched child-like voice, to the well modulated voice of a girl. This change in voice is due to the influence of an active Oophoron Hormone which would not be possible, were it not for an active Pineal Hormone which develops the sex organs, thus increasing the hormonic balance.

INACTIVE PINEAL HORMONE DUE TO OOPHORON HORMONE DEFICIENCY HEREDITY

In a case of an Oophoron Hormone deficiency due to heredity, there will be a lack of secretion from the secretory cells of the Oophoron field at puberty, which would result in an Oophoron Hormone deficiency. Therefore, it would not stimulate the Pineal Hormone sufficiently to produce a normal Pineal Hormone. Thus, this deficient Pineal Hormone would not be capable of developing the ovaries or the rest of the sex organs, resulting in a congenital sex development. Because of this fact, there will be a lack of function on the part of the Oophoron Endocrine field and a deficient Oophoron Hormone, which would fail to stimulate the Thyroid normally, and there would be an inactive Thyroid resulting in hypo-thyroidism. The individual would become fat and inactive because of lack of stimulation on the part of the Thyroid Hormone to the Posterior Pituitary. The individual would become inactive, fleshy, and would likewise be deficient mentally. This would be due to the fact that the Oophoron Hormone did not stimulate the Anterior Pituitary sufficiently for normal development.

LACK OF STIMULATION OF THE OOPHORON HORMONE TO THE PINEAL DUE TO DISEASE

A severe case of mumps during childhood prior to puberty may result in the devastation of the Oophoron field or a partial devastation of the Oophoron Endocrine field, thereby reducing the Oophoron Hormone at puberty so that it will fail to activate the secretory cells of the Pineal gland, thus causing a reduction in the Pineal Hormone to such an extent that it cannot develop the sex organs normally, resulting in an Oophoron Hormone deficiency and a possible sterility. This will also terminate in a fat phlegmatic individual as the Oophoron Hormone being below par cannot activate either the Thyroid or the Pineal sufficiently to produce a normal function.

THE OOPHORON HORMONE'S INFLUENCE UPON A DISTORTED PINEAL HORMONE

In a case in which the individual having inherited a Pineal deficiency yet a normal Thymus relativity, (the Thymus being a member of the Pineal Hormone) the Oophoron Hormone will stimulate both the Pineal and the Thymus to the same extent. Inasmuch as the Thymus is normal, there will be a normal growth in height of the individual, but a gross deficiency in the development of sex organs due to the inability of a normal Oophoron to stimulate a relatively small Pineal gland to normal function. This is known as a distorted Pineal Hormone with a relatively high Thymus.

The Oophoron Hormone will not become as high in the hormonic balance as it should, inasmuch as

the Pineal does not develop the ovaries to a normal size. Therefore, there will be a deficiency in the Oophoron Endocrine field. With this somewhat deficient Oophoron Hormone, there will be a lack of activity to the Thyroid, and the individual will be rather fat and phlegmatic. Also backward mentally, inasmuch as the Pituitary is not receiving the stimulation it should from the Oophoron Hormone. The condition would produce a rather large individual, fleshy, inactive, physically and mentally, of a rather masculine type and sterile.

THE INFLUENCE OF THE OOPHORON HORMONE ON THE THYMUS

The Thymus Endocrine field secretes but very little until puberty, when it becomes active due to the stimulation it receives from the Oophoron Hormone, and remains active until maturity when it recedes and secretes only sufficient to give to the offspring a normal Thymus exchange so as to develop a relatively normal Thymus gland.

The influence of the Thymus upon the growth in height of an individual depends upon the activity of the Thymus during the period between puberty and maturity plus the inhibitory influence of the Posterior Pituitary which is affected by an over-active Thyroid. Should the individual have inherited a relatively large Thyroid, the Thyroid Hormone will become over-active when activated by the Oophoron at puberty, and will over-stimulate the Posterior Pituitary producing an inhibitory action upon the Thymus, thus preventing its influence, resulting in lack of growth in height. The individual will then be of a rather nervous type.

THE INFLUENCE OF THE OOPHORON HORMONE UPON THE MAMMARY

The Oophoron Hormone at puberty stimulates the activity of the Mammary secretory cells and develops the Endocrine field and the Mammary glands. Thus producing a normal Mammary Hormone, which controls menstruation by its inhibitory action upon the corpus luteum, holding it to a four-day duration of scarlet flow. In cases where the Oophoron Hormone is slightly deficient, there will be a lack of activation to the Mammary secretory cells, resulting in a Mammary Hormone deficiency which will then fail to inhibit the corpus luteum and resulting in menorraghia, a 5 to 6 day scarlet flow.

This same deficiency of the Mammary Hormone may be due to heredity, the individual having inherited a relatively small Mammary, which produces a deficient Mammary Hormone. These cases are flat chested, and menstruation 5 to 6 days at a time. Should the individual have inherited large Mammary glands with active Endocrine fields, there will be formed a relatively high Endocrine exchange and Mammary Hormone, which will inhibit the corpus luteum to such an extent that there will be amenorrhea, the individual menstruating one and a half to two days at a time. This will be found in women with well developed, firm, Mammary glands.

THE INFLUENCE OF THE OOPHORON UPON OVALATION AND CORPUS LUTEUM

It is the active Oophoron Hormone that stimulates the Oophoron and develops ovalation and corpus luteum. It is the corpus luteum that produces hyperplasia of the uterus in proportion to its activity, and influences menstruation. A normal corpus luteum will produce a four-day menstruation, providing the Mammary Hormone is in normal relativity. Otherwise, the menstruation will be prolonged with a scarlet flow. An over-active Oophoron Hormone will produce a larger ovalation and a thicker and larger corpus luteum, which will increase hyperplasia of the uterus, and produce a profuse menstruation if not inhibited by the Mammary Hormone. An over-active corpus luteum that is not inhibited by the Mammary Hormone will produce a hyperplasia of the Thyroid as well as the uterus, also an enlargement of the tonsils at the menstrual period.

In all cases where the Mammary Hormone is relatively high in hormonic balance, it will inhibit the effect of the corpus luteum and lessen the hyperplasia of the uterus and Thyroid. Therefore, there is no enlargement or hyperplasia of the Thyroid gland in a girl with well developed Mammary glands. But in a case where the Mammary glands are deficient and the individual flat chested, there is a deficiency in the Mammary Hormone which fails to inhibit the influence of the corpus luteum. This individual is bound to have menorraghia due to an increased hyperplasia of the uterus, also an enlarged Thyroid, which is likewise due to a hyperplasia of the Thyroid. In the latter case, there is an Oophoron Hormone deficiency which fails to activate the Thyroid. Therefore, it enlarges under the influence of the hyperplasia produced by the influence of the corpus luteum which is relatively higher in the exchange than either the Oophoron Hormone or the Mammary Hormone.

THE INFLUENCE OF THE OOPHORON ON THE PITUITARY

The Oophoron Hormone stimulates the Pituitary both Posterior and Anterior. But its influence is more marked on the Anterior than on the Pos-

terior. It is the active stimulation of the Oophoron Hormone that increases the activity of the secretory cells of the Endocrine field in the Anterior Pituitary: Thus increasing the activity of the Pituitary Hormone, which stimulates the brain cells and is responsible for intellect, mental control, and brain capacity. The Oophoron Hormone through its influence upon the Pituitary produces courage, optimism, and initiative in an individual.

In cases where there is an Oophoron deficiency or a low Oophoron exchange in an individual at puberty, there will be a lack of activation of the Pituitary by the Oophoron Hormone, resulting in mental deficiency. That is to say, the individual would not be so keen mentally. Neither will they be active physically, inasmuch as the Oophoron will fail to stimulate the Thyroid to normal action, therefore, there would be lack of stimulation to the Posterior Pituitary resulting in a phlegmatic individual. With this inactive Posterior Pituitary, there would be a lack of stimulation to the nervous system, resulting in a sub-oxidation and an accumulation of fat. This same inactive Posterior Pituitary which is due to an Oophoron Hormone deficiency would fail to stimulate the nervous system in general. This lack of stimulation throughout the system would cause a retarding of such Endocrine fields as the Adrenal, resulting in low cell tone also lack of stimulation to the sex organs producing fridgity.

THE INFLUENCE OF THE OOPHORON HORMONE UPON THE THYROID

The Oophoron Hormone stimulates the Thyroid directly and increases its hormonic effect on the system. When the Oophoron Hormone is normal in the hormonic balance, its stimulation to the Thyroid and that of the Pituitary produces an even balance between the Anterior Pituitary and Posterior Pituitary. It is the Thyroid Hormone through the activity of the Oophoron Hormone upon it that stimulates the Posterior Pituitary and produces initiative and regulates oxidation. When the Oophoron Hormone becomes deficient in the hormonic balance, or relatively low in the exchange after having increased the activity of the Thyroid, it leaves the Thyroid too high in the balance. The Thyroid Hormone them stimulates the Posterior Pituitary to a greater extent than can the now deficient Oophoron Hormone stimulate the Anterior Pituitary. Therefore, the Posterior Pituitary becomes more active and causes an inhibitory action upon the Anterior Pituitary producing nervousness, irritability, and despondency, in proportion to the deficiency of the Oophoron and relatively high Thyroid in the hormonic balance.

After a period of time, when the Oophoron Hormone has not stimulated the Thyroid or does not stimulate it sufficiently, the Thyroid will recede from lack of activation. And as it recedes, it does not stimulate the Posterior Pituitary as much, and there will be a receding of activity of the Posterior Pituitary. This results in the returning of a hyper-oxidation to a normal oxidation, and finally to a sub-oxidation. The individual then becomes quieted down, less nervous, and finally becomes phlegmatic. The Thyroid having receded below par, therefore, the Para-thyroid will be higher in the exchange and fat anabolism will be increased, with a sub-oxidation, resulting in an accumulation of fat.

THE INFLUENCE OF THE OOPHORON HORMONE UPON THE ADRENAL

The Oophoron Hormone has a two-way stimulation to the Adrenal. The first one is a direct stimulation to the Endocrine field of the Adrenal glands. The second is the indirect route through the Thyroid, Posterior Pituitary, and the nervous system to the Adrenal. The Oophoron Hormone when normal, stimulates an active hyperaemia of the Adrenal glands, and in this way serves to activate the base of the Endocrine secretory cells, giving to them the nourishment required for their manufacture of Adrenal secretion. The Adrenal Hormone returns support to the secretory cells of the Oophoron field by building cell tone and supporting the par-oophoron and the Oophoron, giving cell tone to same.

The indirect influence of the Oophoron upon the Adrenal is that through the Thyroid and Posterior Pituitary, producing a stimulation of the entire nervous system to a normal function. This stimulates directly the Adrenal glands as a whole, increasing their activity. An Oophoron Hormone which is of a normal relativity will stimulate the Thyroid normally, which in turn will produce a normal stimulation of the Posterior Pituitary. This stimulation can be increased all the way from normal to about 10 per cent hyper, by the Posterior Pituitary. This increases activity of the nervous system throughout, and produces a more energetic individual. Should the Posterior Pituitary become over-stimulated for any reason whatsoever, to the extent of a 15 per cent hyper-active, it will then commence an inhibitory action first upon the Anterior Pituitary, then at 20 per cent hyper-active it will inhibit the Oophoron Endocrine secretory cells, thus lowering the influence of the Oophoron Hormone, and distorting its hormonic balance.

When the Oophoron Hormone becomes low in the exchange the Thyroid will be relatively high in the hormonic balance. There will then be a lack of

stimulation of the Oophoron Hormone to the Anterior Pituitary, and an over-stimulation of the Posterior Pituitary by the Thyroid Hormone, which is now relatively higher in the hormonic balance than is the Oophoron Hormone. As this over-stimulation of the Posterior Pituitary continues, it causes further reduction in the Oophoron Endocrine field, thus lowering the Oophoron's influence; and the individual becomes nervous, irritable, despondent, and as this vicious cycle continues and reaches a 25 per cent hyper-active Posterior Pituitary, there will be an inhibitory action upon the Endocrine secretory cells of the Adrenals, thus lowering their influence in the Adrenal Hormone. There will then be a lack of pick-up of calcium and bio-chemic units of same formed, thus reducing anabolic process of red fibre, nerve and bone tissue. With this reduction in Adrenal Hormone, there will be a lack of cell tone in the Oophoron and par-oophoron, thus further reducing the influence of the Oophoron Hormone in the hormonic balance. It is in this indirect manner that an Oophoron deficiency will cause a deficiency of the Adrenal Hormone, not only by lack of support of the Adrenal, but because of its deficiency in the hormonic balance which permits the Thyroid to over-stimulate the Posterior Pituitary, thus producing an inhibitory action upon the Adrenals, lowering their efficiency. A lack of cell tone throughout the entire system follows.

THE INFLUENCE OF THE OOPHORON HORMONE ON THE HEPATIC

The Oophoron Hormone stimulates directly the Hepatic Endocrine field by producing an active capillary circulation of same, as well as a hyperaemic condition. The influence of the Oophoron Hormone upon the Hepatic becomes more powerful through the Adrenal than it does directly to the Hepatic. This is because of the fact that when the Adrenal is well supported and stimulated, it will in turn produce cell tone of the Hepatic structure, which is of a greater aid than the direct action of the Oophoron Hormone. The Oophoron's influence is also felt indirectly through the stimulation of the Thyroid which increases activity of the Posterior Pituitary, thus stimulating an increased activity of the entire nervous system and the Hepatic Endocrine field, as well as the entire liver. The Oophoron Hormone further aids the Hepatic Hormone in its function, by its liquifying effect upon secretions throughout the system, which aids materially in the movement of fluids, and prevents liquid stasis to a great degree.

PATHOLOGICAL PHYSIOLOGY OF OOPHORON HORMONE IN RELATION TO HEPATIC DISFUNCTION

In pathological physiology of the Oophoron Hormone, the Oophoron will be relatively low in the hormonic balance, and the Thyroid relatively high. This will over-stimulate the Posterior Pituitary and if pathological physiology has extended sufficiently to produce a 25 per cent hyper-active Posterior Pituitary, there will have been an inhibitory action of the Adrenal, and as the Adrenal is a direct supporter of the Hepatic function, there will be a receding of the Hepatic secretory cells and a deficient Hepatic Hormone, together with an inactive and sluggish liver due to low cell tone, as well as a hyperaemic condition. In the wake of this Hepatic Hormone deficiency due to pathological physiology of the Oophoron Hormone, there will be found a toxic infiltration of inter-cellular spaces which is due to a sub-oxygenation caused by a deficient pick-up of iron on the part of the Hepatic, thus failing to carry oxygen from the lungs into the inter-cellular spaces in sufficient quantities for combustion with carbon.

The deficiency of oxygen cannot produce a clean combustion with an increased amount of carbon and there will therefore be a faulty oxidation. With this infiltration of the toxic material, acid in reaction, throughout the intercellular spaces, there will be a general recession of secretion from every Endocrine secretory cell in the system. This lowers the output and the Endocrine exchange in general. Besides this, the toxic irritation of nerve filaments in the inter-cellular spaces will radiate to and overstimulate the Posterior Pituitary, thus producing further inhibitory action of the Oophoron and Adrenal. As this vicious cycle continues it will terminate in toxicosis, acid cellulitis, spastic colitis, mucous-colitis, constipation, hemorrhoids and piles, atony of the bowel, tosis of the visera, uterine inertia, menorraghia and metrorrhea.

THE INFLUENCE OF THE OOPHORON HORMONE ON THE LYMPHATIC ENDOCRINE SYSTEM

The Oophoron Hormone through its hyperaemic influence stimulates the Lymphatic glands, likewise the Endocrine secretory cells of the Lymphatic glands, thus promoting their output. The Oophoron Hormone likewise stimulates the Lymphatic Endocrine field indirectly through the Thyroid, increasing the Thyroid relativity which in turn activates the Lymphatic Endocrine secretory cells. And, as the Thyroid Endocrine is a component part of the

Lymphatic Hormone, it increases the anti-toxic effect of the Lymph Hormone, therefore where there is an Oophoron deficiency and a receding of the Thyroid due to lack of activation on the part of the Oophoron Hormone, as is found in all cases of hypothyroidism, or in fat individuals, there will likewise be a Lymph Hormone deficiency and the individual is prone to the invasion of pyo-genic bacteria.

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FIFTH INSTALLMENT OF COMPLIMENTARY COURSE

The Influence of the Orchic Hormone

The Orchic Hormone stimulates nearly all the Endocrine glands in the system. Its influence, however, is more directly transmitted to the Pituitary, Thyroid, Prostate, Adrenal, Pineal, Thymus, and Hepatic. Its intensity is in the above order. Of this group, the Orchic Hormone stimulates the Pituitary, Thyroid, and Prostate to a marked degree. This group has been designated as a Hormone, inasmuch as it stimulates and activates the secretory cells of these glands and perpetuates their output or secretion, thus continuing the forming of a Hormone in proportion to their own activation. The stimulation is felt in these Endocrine glands to quite a great degree before there is any stimulation from the Orchic to any other Endocrine gland.

THE INFLUENCE OF THE ORCHIC HORMONE UPON THE PITUITARY

It is the influence of the Orchic Hormone that stimulates activity of the Pituitary Endocrine secretory cells. With a high Orchic exchange, there will be a correspondingly active stimulation of the secretory cells of the Anterior Pituitary which in turn picks up phosphorus forming bio-chemic units of same and these bio-chemic units activate and stimulate the brain cells. Without this stimulation of the secretory cells of the Pituitary, an individual would have a deficient or low mentality.

This individual would be dull in school and would never become keen in comprehension of any problem. Whenever there is a low Orchic exchange, there will likewise be a low or inactive Posterior Pituitary which in turn would be the means of producing inactivity in the individual. With an inactive Pituitary, both Anterior and Posterior, due to a low Orchic exchange, the individual would be dull and lazy or rather inactive. This condition would result in an accumulation of fat.

It is the Orchic Hormone that is responsible for the fearlessness found in some people. The daring and courage to go forward under reverses is bolstered up by a strong Orchic exchange. It is the lack of Orchic exchange that is responsible for neurasthenia. It is because of a lack of Orchic Hormone activation that the Anterior Pituitary is not sufficiently stimulated and that it surrenders as it were, to the action of the Posterior Pituitary. This produces nervousness, irritability, and a pessimistic condition with a lack of courage, lack of confidence, and lack of mental control. The person then gives way to his notions and imagines that he is suffering from untold disease. While the fact remains that it is nothing but a distorted Pituitary due to a deficient Orchic exchange in the Hormone.

The Orchic Hormone stimulates both Posterior and Anterior Pituitary, but stimulates the Anterior to a much greater extent than it does the Posterior. Indirectly, however, the Orchic Hormone stimulates the Posterior Pituitary, and that is through the Thyroid. The Orchic Hormone stimulates the Thyroid increasing its activity, and it is the Thyroid Hormone that stimulates and speeds up the activity of the Posterior Pituitary and the nervous system. With an active or relatively high Orchic exchange, there will be an active stimulation to the Thyroid, producing activity of the individual, increasing oxidation, producing heat and energy. This same active Orchic exchange activates the Endocrine secretory cells of the Anterior Pituitary thus increasing brain activity, and is responsible for intellect, mental control, brain capacity, courage, confidence, and the real "he-man."

THE INFLUENCE OF THE ORCHIC HORMONE ON THE THYROID

The second Endocrine field influenced by the Orchic Hormone is that of the Thyroid. By the Orchic Hormone's activation of the Thyroid, the Thyroid secretes more actively, and the Thyroid Endocrine having an affinity for iodine which it picks up in proportion to its own relativity, forming a Hormone with its correlated Endocrines, stimulating the nervous system through its action upon the Posterior Pituitary which is composed of nervous tissue and does not secrete any Endocrine at all. The rapid and strong circulation is produced by the Thyroid Hormone stimulating the Posterior Pituitary, increasing the intake of oxygen and oxidation, burning up water, carbohydrates and fat, thus producing heat and energy. This stimulation increases the heart action and circulation throughout the system. In physiology, all this is brought about in male by a strong Orchic exchange which stimulates the activity of the Thyroid.

The Orchic Hormone in stimulating the Thyroid to activity, exercises the same stimulating effect upon the Anterior Pituitary which holds in check the rapid action of the Posterior Pituitary, thus producing a mental balance. Otherwise, a too active Thy-

roid Hormone would over-stimulate the Posterior Pituitary and the individual would become a nervous wreck; with loss in weight and strength due to the over-stimulation of the Posterior Pituitary producing an inhibitory action upon the Adrenal, causing it to recede and become low in the exchange. (Hypo-adrenia.)

It is the increased and strong Orchic exchange in the system that stimulates the Thyroid which in turn whips up so to speak the nervous system through the Posterior Pituitary and gives the individual the push and energy to go forward. It is this dynamic force of the Posterior Pituitary that is needed in conjunction with intellect to put into action that which has been evolved through the influence of an active Anterior Pituitary, otherwise intellect and brain capacity would be useless. There are individuals whose Anterior Pituitaries have been developed not only by the influence of the Orchic Hormone, but later by a constant reasoning and logical thinking: Thus stimulating the secretory cells of the Anterior Pituitary and increasing the activity of same. This in turn produces an activation of the brain cells and gives to the individual an unlimited sphere of knowledge and comprehension. The same individual being lacking in activity of the Posterior Pituitary, therefore, would not have the dynamic force to put into action the marvelous plan evolved by the Creator.

THE INFLUENCE OF THE ORCHIC HORMONE UPON THE PROSTATE

The Orchic Hormone exercises its influence upon the Prostate in stimulating it to normal action and function. It is because of a low Orchic exchange or an Orchic Hormone deficiency that the Prostate hypertrophies. The hypertrophy of the Prostate is nearly always found in the case of Orchic deficiency.

An Orchic Hormone deficiency may be due to Orchic inaction which causes the Orchic Endocrine fields to recede, therefore secreting less and less until finally it is insufficient to stimulate the Prostate normally, which results in an enlargement or hypertrophy. However, this is not always the case in an enlarged Prostate. Such a condition may be due to infection which may occur at any age. An Orchic Hormone high in the exchange, would stimulate and favor the contraction and reduction of an enlarged Prostate. Not only would the Prostate be influenced directly, but an Orchic Hormone high in the hormonic balance would activate the Thyroid and Posterior Pituitary as well as the Adrenal exchange. All these three Hormones together with the Orchic Hormone have an active influence upon the

The influence of the Posterior Pituitary is especially marked, but if over-stimulated will cause an inhibitory action of the Endocrine scretory cells of the Prostate and produce an irritation of the Prostate gland. The only way that the Thyroid could irritate the Prostate would be indirectly through its action upon the Posterior Pituitary. It may be well to state that the Prostate returns its stimulation to the Orchic. There is an exchange of stimulation between the Prostate and Orchic Hormones, although the Orchic stimulation is considerably stronger than that of the Prostate.

The Prostate Hormone in its pathological physiology produces a stimulation to the Posterior Pituitary through its irritating effect upon nerve filaments that radiate to and over-stimulate the nervous tissue of the Posterior Pituitary. Its action differs in this respect from that of the Thyroid Hormone which stimulates the Posterior Pituitary directly through its normal function, and the Prostate Hormone stimulates the Posterior Pituitary through its pathological irritation.

A low Orchic exchange or a cessation of the Orchic function would produce an enlarged Prostate with a rather violent irritation of the nerve peripheries in its locality. By the stimulation of the Posterior Pituitary through this irritation of the nerve peripheries, there would be an increase in the action of the Posterior Pituitary to the point of inhibiting the action of the Orchic Hormone, thus causing a reduction of same, and indirectly lowering the function of the Anterior Pituitary; resulting in despondency, irritability, nervousness, loss of mental equilibrium, or mental control.

This lack of mental control on the one side, and the irritation by the Prostate through the nerve peripheries, stimulating the Posterior Pituitary on the other, throws the individual out of balance by a hyper-posterior pituitaryism on the one side, and a hypo-anterior pituitaryism on the other. The individual would have insufficient mental control to hold in check the irritating effect upon the Posterior Pituitary by the irritated Prostate which is constantly irritating the nerve peripheries. In connection with the correction of a Prostatic Hormone disfunction by the administration of the Prostate Hormone, it would be well to gently massage the Prostate so as to set up a stimulation by direct action as well as that which comes through the Orchic Hormone influence.

THE INFLUENCE OF THE ORCHIC HORMONE ON THE ADRENAL

The Orchic Hormone through its influence upon the capillary system and its hyperaemic action, stim-

It also stimulates the Adrenal indirectly through the Thyroid and Posterior Pituitary. The greatest stimulation to the Adrenal secretory cells is that of physical action, by consuming the energy that has been produced by the Adrenal Hormone, mainly the calcium bio-chemic units which have transformed dead protein into living tissue, red fibre, nerve and bone tissue. As physical strain is being placed upon red fibre or nerve tissue, it calls for more anabolic process of calcium bio-chemic units and protein. This serves to build red fibre cells and develop cell tone and strength.

The more one exercises systematically, the greater becomes the development of the Adrenal Endocrine field, and a higher ratio of Adrenal Hormone in the hormonic balance. This serves to increase cell tone and strength. Indirectly it is the Orchic in male that is responsible for cell tone and strength, through its stimulation of the Thyroid and the Posterior Pituitary producing the dynamic force of the individual. And it is the mental force and courage that drives the individual on, so as to develop muscular strength as well as brain capacity.

This mental control together with a powerful Adrenal which produces strength and sustains the nervous system, will hold in check the action of the Thyroid upon the Posterior Pituitary and produce a perfect mental equilibrium. The individual would then have the strength and rapid action to go forward, whipped up by the Thyroid and Posterior Pituitary, but he would likewise have an active Anterior Pituitary which would produce sufficient mental control to hold in check the speed of the Posterior Pituitary and the Thyroid on the other side.

A low Orchic exchange will fail to stimulate sufficiently the Adrenal, thus producing a low Adrenal exchange. This in turn results in low cell tone and weak muscles which give way to fatty degeneration in place of muscular tissue. Therefore, indirectly through an Orchic Hormone deficiency, there may be a lowering of the Adrenal Hormone resulting in a degeneration of red fibre and nerve tissue. Also an infiltration of calcium deposits which fail to be picked up by the now deficient Adrenal exchange. As this Orchic deficiency continues, the Thyroid will become relatively high in the exchange and will cause an over-stimulation of the Posterior Pituitary which at 25 per cent hyper-active will inhibit the Adrenal, causing the receding of same. In the wake of this reduction in the Adrenal Hormone, there will be a lack of pick-up of calcium and a deficiency in calcium bio-chemic units which will fail to convert protein in red fibre and nerve tissue.

The excess of protein taken into the system that cannot be utilized in anabolism due to the Adrenal Hormone deficiency, will become waste and break down into toxic material, some of which will become acid in reaction, causing an irritation to the nerve filaments throughout the inter-cellular spaces; thus radiating to and over-stimulating the Posterior Pituitary, causing a further inhibitory action of the Adrenal lowering cell tone throughout the entire system. This, as it progresses, causes a weakening of heart muscles and the pulse becomes long, fast, and small, known in Endocrinological circles as a weiner pulse. This same inhibitory action upon the Adrenal also produces an inhibitory action upon the Orchic, causing a further deficiency in the Orchic Hormone. The loss of cell tone favors the hypertrophy of the Prostate which is now enlarging due to lack of activation on the part of the Orchic, thus losing its function. This same lack of cell tone following in the wake of an Adrenal Hormone deficiency is responsible for the atony of the bowel, and tosis of the visera.

THE INFLUENCE OF THE ORCHIC HORMONE UPON THE PINEAL

The Pineal Hormone lies almost dormant until it becomes activated by the Orchic in male at puberty. If the Orchic Hormone is sufficiently high in the hormonic balance, it can be noticed in the change of the voice of the male, from that of the soprano, to a base. During this change the individual would have neither a soprano nor base voice, but a so-called cracked voice, breaking down between base and soprano. If the Pineal gland is normal by heredity, the Orchic Hormone will stimulate the secretory cells of the Pineal, so as to form a normal Pineal Hormone which in turn will influence the development of the sex organs, thus increasing the Orchic Endocrine field. It is this increased Orchic Endocrine field that is responsible for the high Orchic relativity that produces masculinity. Should the Pineal Endocrine gland be below par or deficient by heredity, the Orchic Hormone would not be able to stimulate it sufficiently to cause it to produce a normal Pineal Hormone, therefore there will be a deficiency in the development of the sex organs, and they will remain congenitally small. The individual will then continue with a soprano voice and be lacking grossly in masculinity.

It is the influence of the Orchic Hormone upon a normal Pineal that is really responsible for masculinity. If either one is deficient, there will be a lack of masculinity. In a case of Orchic deficiency, which is followed by a deficiency in development, the individual would most likely be sterile; because there would be a great deficiency in the entire testies and a corresponding deficiency in the size of the entire sex mechanism. If the voice of a boy at pub-

erty fails to change from a soprano to a base, it is evident that the Orchic exchange is correspondingly low. If there seems to be no change in the voice at all, the Orchic may be so low that it will fail to stimulate the Pineal and the individual would be grossly lacking sexually.

In a case of this kind, the Pineal Hormone may be deficient, therefore no response from a normally active Orchic exchange. Or, a Pineal may be normal and the Orchic exchange deficient, so that it cannot activate the Pineal. Therefore, the Pineal does not influence the development of the sex organs. Where there is a deficiency in Pineal activity due to a low Orchic exchange, there will be a similar deficiency in the Pituitary because of the low Orchic exchange. There will likewise be a deficiency of the Thyroid due to the same low Orchic exhange; likewise a reduction in activation of the Adrenal and the Thymus.

THE INFLUENCE OF THE ORCHIC HORMONE UPON A DISTORTED PINEAL HORMONE

The Pineal Hormone with a Pineal Endocrine Deficiency and a Relatively Active Thymus

The reason for this is, that at conception the individual inherited a very low Pineal Endocrine exchange with a relatively higher Thymus exchange. Therefore, it required less stimulation from the Orchic to produce a function of the Thymus which influences the growth in height. The Pineal being much smaller through heredity, could not be stimulated sufficiently by the same Orchic exchange that would and did stimulate the higher Thymus relativity to action. In this case, there would be a near normal growth in height, with a gross deficiency in the development of the sex organs.

It is these complex disfunctions that may baffle the physician in treating a case. Because as a general rule, when the Pineal is grossly deficient by heredity, the Thymus is likewise deficient. Therefore, when a physician meets with a case with a normal Thymus and grossly deficient Pineal, and he is not thoroughly experienced and grounded in Endocrine and Hormone physiology as well as pathological physiology, the physician would be at a loss to know just why the Orchic Hormone stimulated the Thymus sufficiently and yet did not stimulate the Pineal sufficiently. It would seem to him that if the Orchic exchange was sufficiently high to stimulate the Thymus, it should likewise stimulate the Pineal gland to normal activity.

It is for this reason that we have just explained that this individual inherited a very low Pineal, that is to say, the Pineal exchange that the individual inherited was low and therefore developed a small Pineal gland. The Thymus exchange which he inherited was practically normal and developed a normal Thymus gland. Therefore, it only required a normal action on the part of the Orchic Hormone to produce a normally active Thymus gland. This Orchic Hormone, however, would be unable to stimulate sufficiently the relatively small Pineal gland to a normal function.

Let it be understood that by a normal function is meant that the gland is not only functioning normally, but that it also secretes a relatively normal amount of Endocrine. That is to say, if a normal sized gland of one specific kind should secrete two C. C. of Endocrine per day, a gland that would be functioning and not secreting more than one C. C. or one-half C. C. per day would not be considered normal; but relatively low in the exchange. This is a case of a relatively small gland not able to secrete sufficiently under normal Orchic Hormone stimulation. Therefore, when a Pineal gland is small by heredity, it would require a much stronger stimulation from the Orchic Hormone in order to make it secrete anywhere near a relatively normal exchange.

THE INFLUENCE OF THE ORCHIC HORMONE ON THE THYMUS

It is the Thymus or rather the Thymus Endocrine in the Hormone, that influences the growth in height. The Thymus, like the Pineal, does not become very active until puberty. When the Orchic is first being secreted and picked up by the system forming Orchic Hormones, it stimulates activity in the Thymus gland, and produces its rapid function. The Thymus then secretes correspondingly to the Orchic, and it is at this time that the individual "shoots-up" in a day or too, so to speak.

The Thymus gland, like the Pineal gland, becomes active through the action of the Orchic Hormone and functions actively until maturity. Although the Orchic Hormone may be relatively high, the individual may not seem to grow in height. This is due to the fact that the Thymus gland is relatively small. The individual inherited a deficiency of Thymus exchange at the time of conception. And, even though the Orchic may be high in the exchange, it would be impossible to stimulate the relatively small Thymus to a normal function or normal growth in height. It is true, however, that if the Thymus gland is relatively small and deficient in its Endocrine exchange, growth can be increased

by the use of the Pineal Hormone of which the Thymus is a member.

Even after the age of maturity when an individual is twenty-one, twenty-two, or twenty-three years of age, growth in height can be increased by the use of the Pineal Hormone which should be sustained by the Orchic Hormone. It is good practice, then, to give the Pineal, which is also high in the Orchic, but much higher in the Thymus. The Thymus Endocrine in the Hormone will stimulate directly the influence of growth in height, while the Orchic exchange in the Hormone will stimulate activity of the secretory cells of the Thymus. A too rapid action of the Orchic at puberty is liable to terminate puberty too early. And, a cessation in the function of the Thymus would result from an overactive Thyroid caused by the activation of the Orchic Hormone, and the individual would remain short. In a case where the Thymus is relatively higher in the exchange than the Orchic, the individual will grow taller, or will have more time for growth in height before the Orchic becomes fully active.

This can be checked on almost anywhere in the universe, but we first discovered it by direct action of the Endocrine glands through surgery. Later on when we had learned the function and effect, we were able to check on the races in general which we found to verify our findings in research. We found that the individual that develops rather slowly from an Orchic standpoint in cold climates would grow to a tall individual, while in tropical climates where the heat would complete the maturity of the Orchic at an early age, it would likewise complete the maturity of the Thymus, and we would have a short individual.

This maturing or receding of the Thymus exchange is due to the activity of the Thyroid Hormone which produces an inhibitory action upon it. In warm countries where the Orchic and Oophoron Hormone reaches its height early in life, it produces an active stimulation of the Thyroid, which in turn causes the receding of the Thymus by its inhibitory effect. Therefore, we find the people in warm countries mature earlier in life and are also shorter in stature.

THE INFLUENCE OF THE ORCHIC HORMONE ON THE HEPATIC

The Orchic Hormone stimulates the Hepatic Endocrine field through its hyperaemic influences on the capillary system. It likewise stimulates the Hepatic Endocrine field indirectly through the Adrenal and Pituitary by way of the Thyroid. Its influence upon the Hepatic through the Adrenal is most marked. An active Orchic exchange will maintain a normal or active Hepatic function. This influence however, seems to come mostly through the direct action of the Orchic upon the Adrenal, and the Adrenal producing the cell tone and the activation of the Hepatic. It can be noticed that when the Adrenal becomes deficient through diseases such as influenza, or a receding of the Adrenal due to inaction, there will likewise be a Hepatic Hormone deficiency which favors auto-intoxication, infiltration of toxic material, acid in reaction, manifested in toxicosis, acid cellulitis, followed by mucous-colitis, constipation, spastic colitis, piles and hemorrhoids.

At the same time, there may not be such a great deficiency in the Orchic Hormone. At least not until this toxic irritation has over-stimulated the Posterior Pituitary and caused an inhibitory action upon the Orchic. On the other hand, the Orchic Hormone may be grossly deficient, and we find that the Adrenal Hormone will continue its support of the Hepatic function maintaining a normal activation, thus keeping the system free of toxic infiltration. This is done directly by the Adrenal Hormone which is being activated by sheer physical exercise.

The Orchic Hormone's influence upon the Hepatic through the Posterior Pituitary is also quite marked. The Posterior Pituitary is activated indirectly by the Orchic through the Thyroid. The Posterior Pituitary stimulates the entire nervous system and keeps up a normal activation in every cell in the body as long as it is in normal activation itself. When it becomes hyper-active to the extent of fifteen per cent or more, it produces an inhibitory action, thus retarding function throughout the system. But an active Orchic Hormone will maintain a normal activation on the part of the Posterior Pituitary and a dynamic force throughout the entire system; thus aiding materially in Hepatic Hormone function.

The Sixth Installment of the Course will be continued in the next issue.

Listening In On the Profession—Continued from Page 2

Mutulation of a woman to the extent that she can never recover again, or the correction of the disfunction restoring it to normal. I want to ask you one question, Dr. Norton. I am not a surgeon perhaps, but I did some surgery while serving with the boys in France. Of course I will admit that I was not performing hysterectomies. The question that I wish to ask you Dr. Norton is this—What are the etiological factors responsible for menorraghia and metrorrhea?"

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Hidden Etiological Factors

By R. D. Pope, M.D.

The success of the Endocrinologist is intimately connected with the removal of all Etiological Factors. The very best therapy is only palliative as long as the underlying cause is still active. These factors must be reckoned with. Every form of therapy has its success, but also entirely too many failures. The physician who meets success, finds and removes these hidden causes, stops the nerve waste, gives nature a chance. Since the removal, while frequently difficult, is often easier than their discovery, any suggestion which will lead to their identity and deleterious action may be worth considering.

It's easy enough for even the patient to realize that a severe shock may weaken and otherwise disturb the important bodily functions, and the real Endocrinologist is quick to inquire into and locate this troublesome factor, but the patient may fail to realize and often denies the presence of worry, fear, anger, hatred, jealousy and envy, yet one or more of these may be persistently present—a most disturbing factor, and be easily overlooked.

A jumpy aching tooth cannot be hidden, but in the long run will not do the damage to the nervous system that a slow pus forming root draining into the buccal cavity or absorbed by the blood stream as fast as formed. The latter can easily be one of the hidden factors.

In the abdominal cavity we may occasionally find tumors sufficiently large and irregular that the most inexperienced could recognize, but most abdominal tumors may become a disturbing Etiological factor before they are large enough to be discovered except by very careful searching, or by highly trained fingers.

A pelvic hernia may not be painful, but it produces a constant inhibition on the orchic or oophoron and thus becomes a profound disturbing factor of the Endocrine system. Any patient cured of an old hernia can testify to the marked improvement in virile powers and general well-being.

A general tosis of the abdominal organs interferes with the circulation, overtaxes and wastes the nerve energy, and acts as a partial obstruction to the alimentary canal. These disturbances must be fully realized and corrected. In correcting, the Endocrinologist remembers, the hypo-adrenia furnishes the needed support, and insists on the proper exercise and diet.

Pelvic abnormalities furnish a host of hidden troubles, but before taking these up, a hurried review of the physiology of the two great nervous systems—the Cerebro-Spinal and the Sympathetic—may be an aid. While these two systems each have an independent function, they are nevertheless interdependent, for like the husband and wife—"neither is one without the other." If one suffers, the other must suffer also. For this reason we must understand the reaction of each system of nerves to irritation.

The CEREBRO-SPINAL nerve system presides over all VOLUNTARY ACTIVITIES of the body, such as motion, sensation and will. It is largely under the control of the conscious mind, and it has periods of rest. During sleep, for instance, the brain is off guard; no thinking is done, no conscious act is performed. This nerve system then, which dominates our thoughts, our actions, our likes and dislikes during the working hours, is off duty during natural sleep and under narcotic and anesthetic influences.

The SYMPATHETIC nerve system presides over all INVOLUNTARY ACTIVITIES of the body, such as digestion, circulation, assimilation, nutrition, emotions, etc. It presides over the vital functions of the body, among the most important of which is the entire Endocrine system. The Sympathetic nerve system never sleeps. Day and night, in sickness and in health, this sustainer of life is at its post. All these bodily activities, then, over which we have no conscious control, all the mighty processes which means life, health and happiness, are under control of the Sympathetic nerve.

Now we can go back to Etiological Factors that may be hidden in the pelvic area. Some one has called this area the Seat of Life, for within this well protected bony cavity the Creator has placed the most important of the creative organs, and He considered them of such paramount importance that they have been protected with a most marvelous intermingling and distribution of the fibers of both nerve systems. The creative system must be unhampered and capable of both control and conservation if one is to have health of mind and body.

This is doubly important when we remember that all creative power—mental, spiritual and physical—arises from this creative center. And again doubly important when we remember that the entire Endocrine system depends to such a great extent upon the Orchic and the Oophoron.

Since the pelvic organs at their orifices have both the Cerebro-Spinal or sensitive nerves and Sympathetic or functional nerves, it follows that any com-

pression, irritation or impingement of either, will cause pain at the area of irritation or disturbed function there or at some remote part of the body.

An ulcer or fissure within the first inch of the rectum may cause pain and contractions and because of that, retard elimination, inhibit digestion and soon upset the entire system. But its demands are so insistent that the cause is found and soon removed. If that ulcer is up beyond the first inch, affecting only the Sympathetic, or painless nerves, the disturbed functions of the entire Endocrine system may be well advanced before the real cause is found.

A similar condition is often produced by a wedge-shaped piece of scar tissue, as hard as sole leather, continually making pressure on and irritating the Sympathetic nerves of the cervix uteri and yet not painful at the seat of trouble because of the scarcity of sensitive nerves. Many a mother has carried such for years, undermining not only the immediate pelvic organs, but through them and their deficiencies completing the inhibitory chain throughout the life supporting Endocrines.

This scar tissue fills up the original tear and often becomes so smooth that the eye of the examining physician can easily overlook it, and only the highly trained finger locate it. We have all seen these women who will tell us that they have never known what health was since their first confinement. Here is the hidden cause of much, worse than useless, abdominal surgery, and a failure to get results with other modalities including Endocrine therapy.

The elongated or adherent prepuce, especially in the female is another usually overlooked source of nerve waste—a well hidden Etiological factor, because it does not cry out with pain but suffers in silence. It is a powerful and continuous depleter of nerve force and Endocrine function.

Every physician realizes the need for careful attention to the prepuce of the boy baby, and every modern mother insists on complete circumcision, where needed, before her boy leaves the hospital, but how many mothers or physicians either give the first thought to the girl baby? Yet here is the same anatomical structure with the same set of nerves, both sensitive and functional, and her whole future health and happiness depend much on these nerves being free and unhampered. These nerves send branches to the ovaries, the uterus, the mammaries, as well as to the brain. Adhesions or other irritations here inhibit the Oophoron and thus disturb the entire Endocrine system. This is one of the most common causes of dysmenorrhea with its many phases and symptoms and its further disturbance of the Endocrines.

There are several other possible abnormalities near the pelvic orifices which may irritate the Sympathetic nerve with its train of disturbed functions, but are easily overlooked because they do not cry out with pain. A serrated saw-toothed labiae minora, or an elongated labiae can also be a fertile source of nerve waste. A urethral carbuncle or rectal papillae or pockets can so easily be overlooked in our hunt for disturbing Etiological factors.

A careful study of surgical anatomy covering the entire body, keeping always in mind the possible disturbance of the Sympathetic as well as the sensitive nerve is absolutely necessary to the successful Endocrinologist. We must remember that the irritation to the Sympathetic nerve endings is working twenty-four hours a day and 365 days a year, causing a terrific nerve waste. Let us find out and remove these Etiological factors, supply the deficiencies in the Endocrines, provide the needed food elements with a correct diet, and see our patients once more enjoying the abundant health. Then and then only, can Endocrinology come into its own and then can the Chronics of which we have so many, be restored to the healthy, happy, abundant life.

The Return of the Prodigal Hormone

A Tragic Comedy—Act Three

LEO BIGELMAN, M.D.

The curtain has risen twice on the trials and tribulations of our endocrine friends enacting this little play. Now it is about to ascend again. Before we take our seats to view the final enactment, I shall pass around this little synopsis to you latecomers.

Nine months ago, Mr. Man was not so well. There was nothing particularly wrong with him, except that he felt let down generally. He was worried, depressed, couldn't think very clearly, slept poorly and was conscious of slowing up generally. Since he is a big healthy-looking man, no one suspected that there might be anything wrong with him, being about six feet tall and weighing about two hundred and fifty pounds. But when we looked in on the inside and witnessed the condition of his

endocrines, it was evident that there was a great deal wrong. Practically all of his endocrines were suffering from a depletion of their hormones. They were having a difficult time of it to support life in themselves and in Mr. Man. So as a result of a conference, at the suggestion of Anty, they decided to call in an endocrinologist. This they did.

The endocrinologist had been on the scene of action for three months when our curtain rose for the second time. What was our surprise to discover, that instead of being better, conditions were much worse than they had been in the beginning. It turned out that not he, an endocrinologist who understood the endocrines and their intricate relationships, but someone who called himself an endocrinologist, had been on the job, and had made a pretty mess of things, by doing the wrong thing. Conditions looked hopeless. Our little endocrine friends were in a woeful state and appeared thoroughly demoralized. But they never give up as long as there is still some life in them, so they rallied, held another meeting, and worked out a plan whereby to rectify conditions. The plan called for the dismissal of the attendant endocrinologist and the finding of a real endocrinologist. And there they stopped.

Six months have elapsed since the curtain dropped on the last scene. Now we are ready to raise it again. The scene, as were the other two, is within the body of Mr. Man. He is asleep. The Endocrines hold their little meetings at night because they have more time when Mr. Man is asleep. He is sleeping peacefully, and if for a moment we step outside of the stage setting to take a look at Mr. Man as a whole, we shall see that he is sleeping with a quiet peaceful expression on his face, completely relaxed. He is breathing evenly. His body appears hard and firm, with a youthful texture to his skin, despite his fifty years. We would judge him to weigh about two hundred pounds at this time, which on his large frame leaves no room for anything superfluous. He looks like that mythical "picture of health."

The curtain rises on a banquet scene. All our endocrine friends are sitting around a beautifully-laid table, contradicting all talk of depression. There is a new face present, sitting at Anty's right. We have never seen him before. There is something familiar about his appearance, and yet it is quite impossible to place him. Closer scrutiny creates a vague impression that he resembles each one present and yet no one in particular. He is treated with respect and cordiality by all, and is deferentially called, "Master." The rest of the cast you will recognize as:

Hepar—the bucolic liver.
Adrena—the tonic adrenal.
Pitry—the whip-cracking posterior pituitary.
Orchi—the race proud orchic.
Anty—the deliberate anterior pituitary.
Thyro—the much abused thyroid.
Para—the phlegmatic parathyroid.
Pancrea—the carbon munching pancreas.
Spleno—the warrior spleen.
Lympho—Spleno's sentry brother.

ACT III

Hepar—What a banquet! I never dreamt I'd live to enjoy anything like this. And just imagine to be able to sit down and relax, and not have to think and worry about a pile of work. Isn't it wonderful, Adrena?

Adrena—You bet it is—thanks to Master, over there.

Master—Tut, tut, you're all too good to me. After all I'm only the product of a man who knew his business. You chaps did all the work, but it's been a great pleasure to work together with you. Your loyalty, your spirit, your cooperativeness would inspire anyone.

Pitry—Well, you certainly put the brakes on me. And what a relief, not to have every one blaming me for something I couldn't help. Orchi and Adrena are transformed since I let up.

Orchi—Don't I know it! But I always liked you just the same, Pitry. You're a violent fellow, but all right at heart. Still, I'm glad not to have your heel in my face all the time.

Adrena—And I, now, live on terms of peace with Hepar all the time. No more complaints of lack of support, eh Hepar?

Hepar—I should say not. You've been a prince the last few months. Makes me feel very young again. Just think, it's only six months since we were all almost flat on our backs, and here we are tonight celebrating in the good old style, with the added pleasure of having our new friend Master with us. Anty, won't you call on Master? Since we have known him he has been so busy, that he has never had time to tell us anything about himself. Maybe he will now.

Anty—Yes, Master, won't you honor us with your confidence, and tell us something about your adventures during all that long time when you were not with us. You know how grateful we all are to you and how interested we are in anything that concerns you.

Master—Again I say, you are much too kind to me and overestimate my value. But I appreciate it, and now that my services with you good people are over, I shall be glad to talk.

Everybody—(Surprised) Over!

Master—(Looking about him sadly and kindly) Yes, over. You see, I am not like any of you, yet I am an offspring of all of you. I came to you as a stranger, made up on the outside, from different sources, not a real thing at all, but a product—a product of other endocrines gathered from different sources and created to support you all for a time and stimulate the secretion of your own hormones. I myself am a hormone, and not an endocrine—in that especially, do I differ from all of you. I cannot perpetuate myself. I depend upon all of you and for an outside supply of myself, to live. I am able to stimulate you all to produce your own hormones, in the ratio in which you are producing them when I first meet you, but I cannot really correct you nor reproduce myself. That depends upon all of you. All I can do is simply to make you strong enough to carry on your work, until you correct yourselves, or get additional hormones of your own kind from the outside. It is very seldom that I'm called into being and brought to the field of action, because there are very few endocrinologists who know about me or who recognize me. Fortunately, your Man finally called in a real endocrinologist and put me on the job. But you'll recall that I was not the only hormone he sent in to you. He sent you additional hormones, Hepar, and you, Adrena, and you, Orchi. But you didn't notice it because they looked so much like your own that you thought you were making them yourselves.

Orchi—That's right. I remember that just a short time ago I was surprised to find myself with an abundance of hormone, without any recollection of having made it myself. So that's how it happened!

Master—Yes, that was hormone administered to your Man by the endocrinologist, just like myself, only specifically for you. That helps you to correct yourself by raising your personal exchange. I only raise the level of the entire exchange. Unfortunately when two or three of you suffer a decided drop in your hormone it becomes increasingly difficult for any of you to get back to your original state, and so it is necessary to bring me into the picture. But now my work is done.

Hepar—(Excitedly) But you are not going to leave us, are you, Master? Why, what in the world shall we do without you?

Master—Yes, my good friend, I must leave you. And you don't need me any longer. You may not have noticed it, but for some time I have not been receiving any more of myself, so gradually I have been becoming a part of each of you, soon, I must cease to exist, but each of you will be carrying on, getting stronger and stronger. I am but the prodigal friend of each of you—the Prodigal Hormone, if you will. I do my work in my own way, and then I must disappear, turning up where and when I am needed. Strange as it may sound, you will not even miss me.

Anty—Don't be ridiculous—not miss you, after all that you have done for us. What do you say, fellows—Will we miss him?

All—I'll say we'll miss him.

Master—Well, just wait and see.

Adrena—I say, bunch, let's give Master three cheers, and give him the victor's ride on our shoulders.

All—Hurra Master—Hurra Master—Hurra Master! (Then they all make a rush for him, pick him up on their shoulders and begin marching around the room. While they are marching around hilariously, Master seems to be slipping down between and into them, and disappears entirely. Suddenly they stop aware that he is no longer riding on their shoulders.)

All—(In confusion) Master, Master, Where are you? (Then they separate and start looking everywhere, in the corners, under the table, under the chairs, but Master is no where to be seen. He has completely and mysteriously disappeared. At last they stop searching and look at each other perplexedly.)

Anty—(Who is the first to recover from his surprise) Well, he's gone just as he said he would.

Adrena—(Suddenly) No he's not. I can feel his presence. There he is behind me. (They all look, but see nothing.)

Hepar—You're crazy, I can feel him behind me. (But there is no one behind Hepar either.)

Orchi—You're both wrong. He's near me.

Pitry—(Laughing) Don't kid yourselves, why look, don't you see him near me? (But there is no one there.)

Hepar—And me?

Orchi—And me?

Adrena—(Getting mad) Are you calling me a liar?

Pitry—Not at all. But you fellows are seeing things. Why, I can feel Master just as distinctly as if he were a part of me.

Anty—That's it. I have it. Stop quarreling. Don't you remember he said that he must disappear, and would become a part of each of us. That's why we each, even I, think he is near each one of us separately. That's what he meant when he said that we wouldn't miss him.

Para—(Speaking up for the first time) Aw, stop gabbing. I for one don't miss him and I am hungry, so let's sit down and finish this food.

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Pancrea—Me too. I don't seem to be able to get enough to eat these days—my appetite is so good. Save me a little of that carbon, Para.

Anty—Very well. I feel that way myself. My, but this Phosphorus tastes good. To be able to eat and digest well, what a change from the days a short time ago.

Orchi—You said it. Here goes another helping of this fine Nitrogen. Look at Hepar guzzling Iron, and storing Glycogen.

Hepar—Look at yourself. And don't call me a gourmond. You'll be thankful for what I eat when you need me to clean up after you and I am strong enough to do it.

Anty—Peace, children. Famine is a thing of the past. Let there be no more war between us. Speaking of war, where are Lympho and Spleno?

Lympho—(In a muffled tone—as if his mouth were too full to speak) Here we are.

Anty—Well, bless their hearts. Look at them. Why, they are actually buried in Sulphur and eating as fast as they can get it in. Did any one ever see such appetites?

Spleno—Sure. We're getting ready to put up new fortifications so that you fellows can work in safety.

Anty—The same old spirit. Either fighting or preparing to fight. Well, we'll certainly feel safe after you two get through with that meal.

Pitry—And count on me, boys, for the old fire and pep.

Adrena—Without the kicks?

Pitry—(Good naturedly) Without the kicks.

Adrena—Thank goodness for that.

Hepar—Thank goodness—you mean thank Master.

Pitry—Thank me, you mean.

Anty—(Sadly) Master was right. He has become so much a part of us that we have already forgotten him. Of such stuff is gratitude made.

Pitry—Well, didn't he himself say that he was The Prodigal Hormone? Why be sorry for him. He's probably off having a good time somewhere.

Anty—Well, well, let's forget it. That's life, I suppose. In need we search frantically for help, and vow eternal gratitude. The need over, we think no more of it. So in the end shall we all go. Our work done—and forgotten.

Thyro—What matter. I kept still—contrary to my spirit. But now I must speak up. I fan the fires of life. I cool them. I am blamed for many things and receive credit for few. But what matter, I say. While we live let us live—let us live with the living. Soon—too soon—we shall join the dead. Will they hold our thoughtlessness against us? Not they. They are too wise, and in their lifetime did as we do. So on with the dance of life. I shall play music for you upon my bellows, and fan you to greater deeds and joys than ever you knew in the past. On with the feast—on with the dance. This is our hour.

All—(Roused by Thyro, join hands and dance around the stage in abandoned happiness, while dimly one perceives the ghost of Master hovering over their heads with a sad but understanding smile, as the curtain drops.)

SURGICAL DEPARTMENT

DR. WM. BARTOSH

The Surgeons' Friends and Enemies

There are twelve Endocrines in the body that to a surgeon are friends when he understands them, and enemies when he does not understand their physiological action.

The various endocrines of the body have a definite function to perform. But it has only been a very few that have been understood very much. We mean endocrine friends when we understand the physiological action of the various Endocrine glands, and enemies when we do not understand their physiological action.

Nature does everything in its power to conserve

and perpetuate itself, and if we will assist nature rather than interfere, or expect it to do the thing which it is unable to do, you will understand what I mean by friends and enemies.

It is the customary thing for a surgeon to check an individual prior to a major operation and anaesthetic, for the conditions of the lungs, the condition of the heart, the pulse rate, the kidney function, etc. And on that basis the method of procedure is decided, and, of course, that is an excellent procedure. But added to that if the surgeon will check for pathological physiology, and the function of the various endocrine glands, he will get a more minute and more detailed information of the ability of the person to survive the contemplated surgical operation and the recovery therefrom.

Now one of the prominent Endocrine glands that very often is deficient, sufficiently low to enter into a complex disfunction, is the Adrenal Hormone. If the diagnosis of an Adrenal Hormone disfunction is not recognized, it is quite easy to overlook the fact that it is existing. Because you may have a patient who looks well, may be a trifle overweight, may not have any valvular heart diseases, but will be a very poor risk, both from the standpont of the anaesthetic and the surgical strain, or surgical shock, post operation, or the recovery therefrom.

Briefly, the physiology of the Adrenal Hormone is made up of a group of Endocrines, the Adrenal, the Orchic, the Thyroid, Spleen and Pituitary. The Adrenal Hormone, being high in Calcium, picks up same, forming a bio-chemic unit which transforms protein into red fibre, nerve and bone tissue. In anabolic process, it is therefore the strength hormone producing cell tone throughout the entire system. The Adrenal Hormone supports the Hepatic by its activation on cell tone. It also supports the Parathyroid and Mammary. It likewise sustains the Splenic Hormone, Orchic and Oophoron; also the Prostate. It is the Adrenal Hormone that is responsible for the strength of every organ in the body.

Symptoms and Syndromes in Deficiency

In a low Adrenal exchange, there will be a low Calcium pickup resulting in Calcaemia and a general infiltration of Calcium throughout the intercellular spaces. With this low calcium anabolism, there will be a corresponding deficiency in protein anabolism, and a general loss of cell tone with a reduction in strength. These symptoms and syndromes will be intensified as the Adrenal exchange becomes less and less. The patient will present a picture of medium fleshiness, though weak, with a fast, small, weak pulse. As the Adrenal exchange lowers twenty per cent it cannot stimulate the Hepatic function and we will have a complex disfunction which would be that of Hepatic disfunction, plus the Adrenal disfunction. With a twenty-five per cent Adrenal deficiency, there will be a deficiency in the cell tone of the Uterus, causing uterine inertia, stasis in the liver. There will be an auto intoxication, mucous colitis, hemorrhoids, with atomy of the bowels. At thirty-five per cent hypo-active it will cause a low cell tone in the heart muscle causing cardiac dropsy. The patient will usually present condition of low blood pressure, which will in turn cause cold hands and feet and other evidences of circulatory insufficiency. The patient is played out mentally and physically, is run down, becomes neurasthenic, and lacks initiative and pep.

Now with this amount of Adrenal disfunction we will have also the symptoms of the Hepatic Hormone deficiency. And briefly, that is the inability of the Hepatic Endocrine to pick up its chemical affinity of iron which it incorporates in the red blood cells, and is responsible for oxygenation. The Hepatic endocrine combines with its affinity group of Endocrines, which are Adrenal, Orchic, Thyroid, Pituitary and Oophoron in Female. And due to the lack of cell tone in the liver, we will have a distorted and deficient Hormone. There will be pathological physiology in proportion to this disfunction. In the wake of this pathological physiology, there will be a reduction in the iron pickup by the Hepatic Hormone, resulting in a lowering of oxygenation to oxidation, inasmuch as the carbon in the system will be too high in proportion to the oxygen brought in. This faulty oxidation will result in an inactive and sluggish capillary system. The movement of fluids of the body will become retarded to perhaps a liquid stasis. In this condition it will be impossible to eliminate toxic infiltration from the intercellular spaces, and toxicosis follows. This produces an irritation and an acid condition, thereby producing a fertile field or culture media for the growth of bacteria. Hence an individual is predisposed to a pathogenic bacteria.

Conclusions in brief: First check the case carefully from the standpoint of the Endocrine Disfunction and see if the patient will be able to undergo the proposed surgery, as in hypo-adrenia, we have loss of cell tone throughout the whole system, including the heart muscle. With that, you also very often have a hyper-active Posterior Pituitary. Then you are faced with the danger during your operation of the exhaustion of the muscular tone, developing in acute dilation of the heart. Or a surgical shock due to an over-stimulation of a Posterior Pituitary, causing an inhibition to the Adrenal function, bringing on surgical shock.

This type of case does not take general anaesthetic very well, a local or spinal being preferable. If it is not an emergency operation, it would be better to postpone the operation for a time and put the patient on a Master and Adrenal hormone, and operate at a more favorable time. If, however, it is necessary to operate immediately, proceed with the greatest of caution and the shortest operating time and sustaining the heart by Hypo of the Adrenal Endocrine. The patient should also be detoxicated and the acidosis present should be relieved if possible by feeding the patient with an alkaline base diet, and drinking about a gallon of warm water per day, and cleansing the bowel with Colonic irrigation, and also giving some conservative protein.

I will next consider some of the post-operative infections. I will remind the reader that, as every surgeon knows, in diabetes, the poor healing ability of the tissue and the great prevalence of infections. The outstanding factors being the Pancreatic endocrine deficiency with which everyone is familiar, and the acidosis present in these cases. The deficiency of the Splenic hormone, including its Endocrine, insulin, is the causative factor.

I shall take into consideration the Lymphatic Hormone to point out the important part that it has and the great friend it is to the surgeon in battling with infections. It is this hormone especially that plays its part when the surgeon will decide if the patient has the resistance and the ability to combat the infection, and to recover and get well.

The Lymph hormone has an affinity for sulphur which it picks up, forming a bio-chemic unit of same. These bio-chemic units become anti-toxic agents, against pyo-genic bacteria.

The Lymphatic Hormone, the Protector, acts as an anti-toxic agent against pyo-genic bacteria, that wards off infection such as is caused by pyo-genic bacteria. Immunity is produced by a high Lymphatic exchange, which is capable of picking up its chemical affinity, sulphur, forming bio-chemic units of same in great quantities, thereby raising the anti-toxic resistance of the system to such extent that bacteria cannot develop and therefore having little or no effect upon such an individual.

In this Hormone, there are two members which pick up sulphur forming bio-chemic units of same—they are Lymph and the Splenic Endocrines. The Adrenal Endocrine picks up calcium, forming bio-chemic units of same, which in turn transforms protein into red fibre, building up cell tone, which aids materially in the anti-toxic properties of the Hormone. In any condition in which the Thyroid becomes deficient in the exchange, there will be a distorted and deficient anti-toxic effect produced in the system. Or, with an Adrenal deficiency with low cell tone, there will likewise be a distortion of the Lymph Hormone due to the lack of support in the Hormone from the Adrenal Endocrine. This will also cause susceptibility to pyo-genic bacteria in the system.

In all fat people, there is a deficiency in the Thyroid exchange, therefore there is the same Thyroid deficiency in the Lymph Hormone. It is for this reason that all fat people are susceptible to infection from pyo-genic bacteria.

Pathological Physiology in the Lymphatic Hormone: Whenever there is a deficiency caused by any member of the Lymphatic Hormone, there will be a similar pathological physiology of the Hormone. For instance, should there be an Adrenal deficiency, as is found in a weak individual, there will likewise be a distortion or pathological physiology of the Lymphatic Hormone, inasmuch as the Adrenal Endocrine is a member, and the individual would be susceptible to the infection of pyo-genic bacteria. A similar condition to this will be found in an individual with hypo-thyroidism. The individual will be fat, and in these cases there is a deficiency of the Thyroid exchange in the Lympatic Hormone which distorts the Lymphatic Hormone, lowering its anti-toxic effect. Hence, the individual is suscep tible to pyo-genic bacteria, pus forming bacteria.

The Lymph Hormone is likewise distorted in all cases of acidosis, and acid cellutis. This condition retards the function of the Splenic Endocrine which is also a member of the Lymph Hormone. In this condition the patient becomes susceptible to pathogenic bacteria, as well as pyo-genic bacteria. There is also a susceptibility to infection in all cases where the Endocrine exchange has receded considerably below par. This will of course affect and lower the Lymph Hormone, and recede in its anti-toxic influence.

The Lymph Hormone like that of the Splenic Hormone, becomes activated by supplying its chemical affinity which is sulphur. If sulphur is fed the individual in the form of a vegetable sulphur, it will stimulate activity of the secretory cells of both the Lymphatic Endocrine field and the Splenic Endocrine field. These are the only two Endocrines of the system having an affinity for sulphur.

This sulphur of course, cannot be picked up and utilized unless the Lymphatic Hormone and the Splenic Hormone are functioning normally. If there is pathological physiology of the Lymphatic Hormone or Splenic Hormone, they will not be able to pick up sulphur in sufficient quantity to render the system immune to toxic invasion. In

such cases, and if the individual is susceptible to the various infections, the Lymph Hormones should be given. And of course, always, if the Endocrine exchange is low, the Master Hormone should be given alternately.

Sulphur should also be given in concentrated form, always of vegetable origin. One of the most concentrated forms of sulphur which seems to activate the most favorably of all is that of garlic. Give dehydrated garlic in 5 grain doses along with Hormone, so that it may have an immediate pickup of sulphur forming bio-chemic units and increasing rapidly the anti-toxic effect upon the pyo-genic bacteria. There are a number of other foods that are rich in sulphur, such as onions, asparagus, turnips, cauliflower, cabbage, egg yolks, shrimps, and various others, but these will suffice.

I just wish to differentiate an Endocrine from a Hormone. An Endocrine is a transparent fluid, 1040 specific gravity, slightly alkaline in reaction, secreted by the secretory cells of the gland. Each of the Endocrines have an affinity for the various chemical elements that compose man.

A Hormone is a complex single unit composed of an affinity group of Endocrines according to their activation in the body.

I will mention just a few of the valuable Endocrines that we have which are used hyperdermically. Adrenal, used in shock, hemorrhage, collapse with some of the various cardiac diseases. Use both intervenously, intermuscularly.

Pituitary, sometimes used in shock, but most often post operative illeus, gas pains and ailimentary parisis. The tonic influence of Pituitrin on the alementary muscle is amazing, many times performing miracles. Also very valuable in obstetrics to increase the contraction of muscles and hasten labor. Also useful in post partum hemorrhage.

Insulin and Diabetic Gangrene. We have a number of other Endocrines of more or less value in surgery, but the above, I believe, are recognized by all our surgeons as some of our most valuable aids.

THE ADRENAL HORMONE

The Adrenal Hormone is composed of an affinity group of Endocrines as follows: Adrenal, Oophoron in female, (Orchic in male) Thyroid, Spleen and Pituitary. These affinity Endocrines form a complex single unit known as the Adrenal Hormone, which have a chemical affinity for calcium, nitrogen, iodine, sulphur and phosphorus. It holds these chemical elements in suspension in proportion to its own balance and activation. That is to say, the chemical elements held in suspension by this Hormone will vary in proportion to the balance of the Hormone, which may vary considerably from the Hormone balance.

In physiology the first law of nature is observed, and that is the law of self preservation. Before the Hormone produces any physiological action outside of the Hormone it first complies with the first law of nature, and that is to activate the secretory cells of all Endocrine glands represented in the Hormone, so as to perpetuate its own function, which is maintaining the life of the Hormone. This Hormone may be normal or it may be abnormal. Nevertheless, a Hormone will perpetuate its own function in proportion to the balance of chemistry in the Hormone. If a Hormone is out of balance, it will activate the secretory cells in a similarly distorted manner, and there will be a distorted Hormone formed continuously or until such a distortion has been corrected.

The Adrenal Hormone's function is that of building cell tone, nerve and bone tissue. It accomplishes this by picking up its chemical affinity which is calchemic units of calcium transform dead protein into living tissue such as red fibre, nerve and bone tissue. In so doing, it produces strength of muscle and red fibre everywhere. It also produces nerve force and steadies the nervous system. The Adrenal Hormone builds large, heavy, strong bones with heavy prominences on same for the attachment of heavy muscular structure. Because of this cell tone produced by the Adrenal Hormone, it supports every organ in the anatomy. It supports the visera, influences the firm contraction of heart muscles and the peristaltic action of the bowel, cell tone and firm contraction of the uterine muscles and ligaments, also those of the bladder and sphinctrus, as well as stabilizing the nervous system.

A high Adrenal relativity will produce an individual with large, heavy bones, square face, wide jaws, thick ears, rather close to the head, thick nose, rather large nostrils, thick lips, heavy eyebrows, and heavy muscles throughout the system. Should the Orchic Hormone be likewise high in its exchange, it would serve to modify that of the Adrenal action and the muscles would not be so bulky, but longer and more sleek, yet powerful.

THE INFLUENCE OF THE ADRENAL HORMONE ON THE HEPATIC

The Adrenal Hormone, through its anabolic process of red fibre, produces cell tone of the entire liver as well as the field of Endocrine secretory cells of the Hepatic; thus increasing the Hepatic Hormone's activity in picking up iron, forming bio-

red blood cells. This serves to increase oxygenation, favoring a more even exchange between carbon and oxygen in oxidation. The active combustion of carbon and oxygen plus the support of firm cell tone, moves freely the fluids throughout the inter-cellular spaces plus eliminating waste materials from the system.

THE INFLUENCE OF THE ADRENAL HORMONE ON THE ORCHIC

Because of its function as a muscle and nerve builder, the Adrenal Hormone stimulates cell tone of the Orchic, and the Orchic Endocrine field, thus activating its output. It also stimulates the Orchic indirectly through the nervous system as the Adrenal builds nerve tissue and thereby gives strong and active nerve supply to the Orchic. It also supports the Orchic by stabilizing the nervous system and preventing the Posterior Pituitary from inhibiting the action of the Orchic, should it become overactive through worry, or be over-stimulated by the Thyroid Hormone. In this way the Adrenal Hormone serves as a break in holding in check and stabilizing the nervous system.

The Adrenal Hormone by its tonus aids the Orchic in producing courage, as well as strength, in the individual. The Adrenal Hormone exercises a most favorable influence upon the entire Endocrine system by producing cell tone, thus aiding in the supply of nourishment to that base of all Endocrine fields. Where the Adrenal Hormone is high in its relativity together with a high Orchic exchange we would have the picture of health, strength, and energy, as personified by the illustration below.

THE INFLUENCE OF THE ADRENAL HORMONE ON THE OOPHORON

The Adrenal Hormone produces the same influence upon the Oophoron as it does upon the Orchic. It is responsible for the cell tone of the par-oophoron which is the base of supply to the Oophoron. When the Adrenal Hormone is active, it produces cell tone and activation of the par-oophoron, thus influencing an active Endocrine field in the Oophoron. It also influences a normal ovalation and normal corpus luteum. By its influence on cell tone, it aids materially in the prevention of cysts forming in the ovarium, par-oophoron, and the Oophoron. It also aids the Oophoron indirectly through its effect upon the uterus, producing a firm cell tone, thus preventing metrorrhea, or uterine inertia.

THE INFLUENCE OF THE ADRENAL HORMONE ON THE MAMMARY

The Adrenal Hormone also aids the Mammary by its joint influence upon menstruation. It enters into and forms a Hormone with the Mammary and Pituitary. This Hormone regulates the duration of menstruation. This it does through the inhibitory action of the corpus luteum plus the firm cell tone it produces in the uterus. It also supports the Mammary directly by the cell tone it produces within the glands. The Mammary is supported indirectly through the influence of the Adrenal Hormone upon the nervous system, stabilizing same, thus aiding in the prevention of an inhibitory action from the Posterior Pituitary under mental strain, or other nerve strains.

THE INFLUENCE OF THE ADRENAL HORMONE ON THE PARA-THYROIDS

It is through the nervous system that the Adrenal Hormone sustains the Para-thyroid, serving as a governor, holding in check the stimulating effect of the Thyroid upon the nervous system to the Posterior Pituitary. It also serves to aid the Parathyroids by its ever increasing cell tone of same. The Adrenal Hormone aids the rest of the Endocrine glands in a lesser proportion by its cell tone.

THE INFLUENCE OF THE ADRENAL HORMONE ON THE THYROID

The Adrenal Hormone influences the Thyroid from different angles. First, by supporting it through the cell tone it produces in the gland itself, thus supporting the activity of the Endocrine secretory cells in the Thyroid field. Second, it supports the Thyroid indirectly by holding in check the nervous system which may have been over-stimulated by the Posterior Pituitary and preventing it from causing an inhibitory action upon the Oophoron or Orchic, which would result in a distorted Thyroid exchange.

PATHOLOGICAL PHYSIOLOGY OF THE ADRENAL HORMONE AND ITS DISTORTING EFFECT UPON THE HORMONIC SYSTEM

In pathological physiology of the Adrenal Hormone, there will be lack of calcium pick-up in biochemic units, resulting in an infiltration of calcium deposit in the inter-cellular spaces, also calcaemia. Following this, there will be a reduction in anabolic process of red fibre, nerve and bone tissue. The intake of protein may continue on the same as during normal function, but will be in excess proportion to the extent of pathological function. This excess of protein will break down into toxic material, some acid in reaction, and will result in toxicosis and acid cellulitis. We would then have a lowering of cell tone due to lack of anabolism and red fibre tissue, plus a toxic infiltration which would irritate the nerve filaments causing an increase in the nervous system, and hyper-oxidation. With this condition existing, there would be a gradual diminution of Adrenal support to the Hepatic function, causing it to recede.

In fifteen per cent hypo-adrenia, there would be a fifteen per cent deficiency in calcium bio-chemic units which would cause a fifteen per cent excess in protein in the system which would break down into toxic material, acid in reaction, leaving a fifteen per cent toxic infiltration in the inter-cellular spaces. This fifteen per cent hypo-adrenia would likewise reduce cell tone fifteen per cent, thus the individual would reduce in strength in the same proportion. There would likewise be a fifteen per cent reduction in Adrenal support to the Orchic or Oophoron, Mammary and Para-thyroid, also a fifteen per cent deficiency in bone and nerve tissue anabolism.

ADRENAL HORMONE COMPLEX PATHOLOGICAL PHYSIOLOGY

An Adrenal Hormone Complex Disfunction is That in Which the Adrenal Hormone Has Receded Fifteen Per Cent or More.

ADRENAL, HEPATIC, COMPLEX DISFUNCTION

In this condition the Adrenal Hormone has receded to the extent of fifteen per cent or more, which causes the receding of the Hepatic Endocrine secretory cells, thus producing a pathological physiology of the Hepatic Hormone. In this deficiency there would be a deficiency in iron biochemic units as the Hepatic Hormone picks up iron, incorporates same in the red blood cells and is responsible for oxygenation. This reduction then, in iron bio-chemic units, would result in a sub-oxygenation. Following in the wake of a sub-oxygenation, there would be a faulty oxidation, inasmuch as there would be too much carbon in the system for the amount of oxygen taken in. With this faulty oxidation due to a sub-oxygenation, there will become a sluggish movement of fluids in the inter-cellular spaces which have been filled with toxic material that followed in the wake of a deficiency in anabolic process. This sub-oxygenation will fail in detoxifying the system, in the wake of which, there would be a toxicosis and a further cellulitis.

With this increasing toxidity of the system, the irritation of nerve filaments and nerve peripheries will become greater and greater, thus stimulating the Posterior Pituitary to the extent of a fifteen per cent hyper, which will start an inhibitory action of the Anterior Pituitary, producing nervousness and irritability. This toxic condition of the inter-cellular spaces will affect the secretory cells of the Endocrine fields, causing them to recede, thus lowering the Endocrine exchange. This lowering of the Endocrine exchange will cause a further toxic condition of the inter-cellular spaces and setting up a greater degree of irritation, thus increasing the inhibitory action to the extent of twenty per cent.

COMPLEX DISFUNCTION OR PATHOLOGICAL PHYSIOLOGY OF THE ADRENAL HORMONE, HEPATIC HORMONE, ORCHIC OR OOPHORON HORMONE

With a twenty per cent hyper-active Posterior Pituitary produced by the toxic infiltration, there will be an inhibitory action produced upon the Orchic or Oophoron Hormones, thus reducing their influence in the hormonic balance. With the Orchic or Oophoron Hormone becoming deficient in their hormonic balance, they will not stimulate and activate the Anterior Pituitary sufficiently to hold good mental control. With the Orchic or Oophoron Hormone reduced in the hormonic balance, the Thyroid will be relatively high, thus over-stimulating the now already hyper-active Posterior Pituitary increasing its action to a twenty-five per cent hyper.

With the Oophoron or Orchic deficiency in the hormonic balance, the individual will lose courage and confidence inasmuch as he has lost partial mental control, likewise strength having been reduced, plus a feeling of languor, due to the toxic condition of the system. This lack of courage and confidence causes the individual to become pessimistic and despondent, and this frame of mind will further stimulate the Posterior Pituitary and cause a further inhibitory action. With a twenty-five per cent hyper-active Posterior Pituitary, there will be an inhibitory action produced upon the Adrenal. This completes

the vicious cycle, starting from an Adrenal Hormone deficiency, going through a complete change of pathological physiology, and returning to the Adrenal with the inhibitory effect produced. By this complex disfunction, the Adrenal Hormone recedes further.

PATHOLOGICAL PHYSIOLOGY OF THE MAMMARY HORMONE PRODUCED BY COMPLEX DISFUNCTION OF THE ADRENAL HORMONE

With a twenty-five per cent deficiency in the Adrenal Hormone, there will be a lack of support to the Mammary Hormone to the extent of twenty-five per cent. This twenty-five per cent Adrenal Hormone deficiency will produce a slight inertia of the uterus. The Adrenal being a member of the Mammary Hormone, and because of its deficiency, will cause a distortion of the Mamary Hormone and a reduction of its inhibitory influence upon the corpus lutem to the extent of twenty-five per cent. This will result in menorraghia plus metrorrhea due to low cell tone of the uterus.

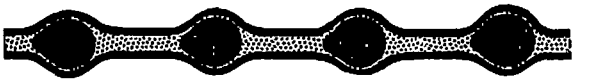
PARA-THYROID IN ADRENAL HORMONE COMPLEX DISFUNCTION

With a twenty-five per cent deficiency of the Adrenal Hormone, of which most is due to the inhibitory action of the Posterior Pituitary, it has also caused an inhibitory action upon the Para-thyroid and fat anabolism is reduced, thus causing a loss in heat and energy. During this stage of pathological physiology in complex disfunction of the various Hormones, the Thyroid Hormone will be relatively high, aiding in producing nervousness by its stimulation of the Posterior Pituitary.

PATHOLOGICAL PHYSIOLOGY OF THREE OR MORE HORMONES

When three major Hormones become deficient, there will be a general lowering of the entire Endocrine exchange. In the Adrenal Hormone complex disfunction which has reached the extent of twenty-five per cent and more in deficiencies, there will be a considerable weakening in cell tone throughout the entire system. In hypo-adrenia of thirty-five per cent or more, there will be found a pulse which has been dubbed a weiner pulse because of its character. It is a long, soft, fast, pulse, as depicted below.

When the case becomes toxic and the inter-cellular spaces are well clogged with waste material that irritates the capillary system plus an over-stimulation by the Posterior Pituitary, there will be a contraction produced in the capillary system, thus raising blood pressure. In such cases, we have a change in pulse from a weiner pulse to what has been dubbed a pressure pulse, which is also fast, but full, and rather blunt nosed and tapering back.



This condition changes as pathological physiology increases. With a toxic infiltration producing a pressure pulse and an ever receding Adrenal Hormone, lessening cell tone, this will cause at first a stimulation of heart muscles and development of same due to the terrific driving against a toxic infiltration. This will produce a rather large heart, and now as the cell tone is diminishing, there will be a changed condition. The infiltration will have produced an irritation of the Endocardium, producing Endocarditis. Thus there is a slight murmur.

The now progressive hypo-adrenia will cause a relaxation of the heart muscles, because of the low cell tone. This will cause a slight dilation of the heart resulting in regurgitation. The pulse will then change to that of a fairly full pulse, but intermittent, as the pick-up of the regurgitation is being compensated for. Below is illustrated the pulse found in such cases.

As the condition has progressed to this stage, the receding of the Orchic or Oophoron will have failed to activate the Thyroid, and it will also have receded. With the receding of the Thyroid, there would be a change of oxidation from a hyper or normal to a sub-oxidation and an accumulation of fat follows in the wake of this. There is now an accumulation of fat at the expense of red fibre. The individual may look fairly fleshy, though still in a most depleted condition. If this should be a woman prior to menopause, there will be not only menorraghia, but metrorrhea. The flow will continue over a period of ten to twelve days or more, due to the terrific uterine inertia which now predisposes the woman to tumors such as cauliflower tumors, fibroids, pollipi, or carcinoma.

SYMPTOMATOLOGY OF ADRENAL HORMONE DEFICIENCY

In a fifteen per cent hypo-adrenia, the symptoms will be that of one slightly tiring, and feeling perhaps a little more tired in the morning than when they are through with the day's work, also a slight loss of appetite for protein diet. These cases rarely

come to the attention of the physician. However, if they should, the physician would be dealing with a simple Hormone deficiency, and the therapy would be the supplying of this Hormone.

SYMPTOMATOLOGY IN ADRENAL HORMONE COMPLEX DISFUNCTION

A twenty per cent deficiency involving the Hepatic function, producing pathological physiology in the two Hormones, with a somewhat increased action of the Posterior Pituitary. The symptoms now would be a lack of cell tone, loss of strength, auto-intoxication, dull headache, some constipation, slight nervousness, and somewhat irritable.

SYMPTOMS IN TWENTY-FIVE PER CENT HYPO-ADRENIA, AND ITS COMPLEX DISFUNCTION

Progressive weakness. In female, metrorrhea due to uterine inertia, menorraghia due to Mammary Hormone deficiency, reduction in fat anabolism due to hypo-thyroidism, irritability and nervousness, due to hyper-active Posterior Pituitary. Lack of confidence, pessimistic, somewhat despondent, due to an Orchic or Oophoron deficiency. Toxicosis, and acid cellulitis, due to Hepatic Hormone deficiency, increased character of pulse, that of a pressure pulse.

SYMPTOMS AND SYNDROMES IN THIRTY-FIVE PER CENT HYPO-ADRENIA AND ITS COMPLEX DISFUNCTION

The individual will be weak, easily exhausted, with a weiner pulse. May have cardiac dropsy. If a woman, extreme uterine inertia, boggy uterus, condition in which hysterectomy is usually advised and ofttimes performed. Short of breath, sometimes imperative to sit up to get air enough to breathe properly. The heart may miss five to six beats or more per minute. There is a marked general devitalization of the individual with a thirty-five per cent deficiency in the entire Endocrine exchange.

ETIOLOGY IN PATHOLOGICAL PHYSIOLOGY OF ADRENAL HORMONE DISFUNCTION

There are many etiological factors responsible for pathological physiology of the Adrenal Hormone. First, may be heredity. The individual may have inherited a low Endocrine exchange of the Adrenal at the time of conception, and therefore developed a relatively small Adrenal gland with a comparatively small Endocrine field. In such cases, there would be an Adrenal Hormone deficiency from the beginning of life. And, unless this was increased to a higher exchange by exercise, the individual would always remain weak and deficient in cell tone and strength. He would be predisposed to pathological physiology of other Hormones, due to lack of activation and support by the Adrenal Hormone.

Second, inaction is another etiological factor. An individual may have inherited a normal Adrenal Endocrine exchange and developed a normal Endocrine gland that had been secreting normally over a period of years, and because the individual had ceased to exercise, even though in good health, or perhaps just taking life easy, or because of some accident and not able to take physical exercise, the Adrenal would recede and become deficient.

Third, disease such as influenza, or any other disease that will lower the efficiency of the Endocrine secretory cells of the Adrenals, would become an etiological factor in pathological physiology. Influenza is perhaps one of the most outstanding diseases in lowering the efficiency of the Adrenal Hormone. Then there are other diseases that would not attack the Adrenal directly, but would cause a stimulation to the nervous system, increasing the action of the Posterior Pituitary, thus inhibiting the Adrenal, producing pathological physiology of same. Worry is another etiological factor. Should an individual worry to any great extent, there would be an over-stimulation to the Posterior Pituitary and an inhibitory action to the Adrenal, resulting in disfunction of same. Cigarette smoking is another etiological factor. Cigarette smoking stimulates directly the Posterior Pituitary which first inhibits the Anterior, second, the Orchic and Oophoron, thus removing the support of the Adrenal, next the Posterior Pituitary inhibits the Adrenal, lowering the output of its Endocrine, and a reduction and distortion of the Hormone result.

Over-eating is another etiological factor. By over-eating and lack of exercise, the individual will cause an accumulation of toxic material in the system which irritates the nerve filaments and nerve peripheries. This irritation radiates to and over-stimulates the Posterior Pituitary, causing an inhibitory action of the Adrenal, and lowering its efficiency. Besides this, the toxic infiltration of the inter-cellular spaces will serve to lower the Endocrine exchange of the Adrenal, also the entire Endocrine system.

DIFFERENTIAL DIAGNOSIS IN ADRENAL HORMONE COMPLEX DISFUNCTION

From the standpoint of pulse rate and character pulse, one must differentiate between a hyper-thyroid pulse, a hypo-para-thyroid pulse, and that of hypo-adrenia. They are all small and fast, but vary

in character and shape. The Thyroid pulse is also fast, small, but is round and hard shaped. The hypo-adrenia pulse is small and fast. But unlike the hyper-thyroid and hypo-para-thyroid, it is long and soft, and has been named weiner pulse because of its resemblance to a string of weiners being pulled through a tube. Hypo-para-thyroid is small, fast, and oval shaped.

DIFFERENTIAL DIAGNOSIS AS TO HEADACHES

One must differentiate between the headache produced by a toxicosis and that which is produced by worry or mental strain from that which is produced by uterine inertia, so called uterine headache. These headaches are very much the same and can only be successfully differentiated by finding the etiological factor producing a headache. However, a headache that is produced by toxicosis is a dull headache and not throbbing. The one produced by worry or mental strain is a harder and throbbing headache.

Uterine headache is also severe, but is characteristic of its location over the top of the head. Then, one must differentiate between these headaches and a complex headache produced by uterine inertia plus a toxicosis headache. There is also a complex headache produced by toxicosis plus uterine inertia plus worry. In these cases, the physician must move cautiously in locating the etiological factors responsible, and noting the dominant disfunction before he proceeds to correct pathological physiology.

One must also make a differential diagnosis between pathological physiology of the Adrenal Hormone and pathological physiology of the Para-thyroid Hormone, as they have many symptoms in common. The pulse is something alike, both cases are weak, toxic and languid. In hypo-para-thyroidism, carbon pick-up and fat anabolism is deficient. In para-thyroid deficiency there is a lack of fuel for oxidation, therefore no energy. In hypo-adrenia, there is very little protein utilized in anabolism, therefore no strength. Hypo-adrenia must also be differentiated from a trauma produced by a congestion or an infiltration or induration upon nerve centers, shutting off impulses, and thereby reducing strength bordering on paralysis.

HORMONE THERAPY IN PATHOLOGICAL PHYSIOLOGY OF THE ADRENAL HORMONE, AND ITS COMPLEX DISFUNCTIONS

Before starting therapy of any kind, one should first ascertain the etiological factors, primary and secondary, responsible for pathological physiology as found after a careful check-up of the various disfunctions and deficiencies. Without this knowledge first, it would be useless to attempt therapy of any kind and expect favorable results. After etiological factors have been discovered, they should be removed as completely as possible, both primary and secondary.

After the removal of the etiological factors, the next thing to be considered is the percentage of deficiencies of the various Hormones and likewise the Endocrine exchange of the system. If the Endocrine exchange is below par, it should be raised to par first, and then alternated with the Hormone which shows the most pronounced syndromes. However, two Hormones activating the same point should not be given at the same time, or alternated one with the other. That is to say, the Hepatic Hormone should never be given with an Orchic or Oophoron Hormone providing the case is very toxic, because this would produce an over-stimulation of the nervous system and would serve then to inhibit rather than stimulate. One should bear in mind that it requires ninety days to perfect an Endocrine saturation. Until then, there is not a normal activation of the secretory cells of the Hormone given.

Should the exchange be considerably below par, which it always is in a complex disfunction with three or more Hormones down, the Master Hormone should be given over a period of ninety days to perfect an Endocrine saturation. By this time, the blood would carry a one hundred per cent efficiency in bio-chemic units of the system; as the Master Hormone stimulates and activates every Endocrine secretory cell in the body. In a case of hypo-adrenia, the Adrenal Hormone should then be alternated with the Master Hormone, giving five grain Hormone units of each per day, preferably after meals.

The Adrenal Hormone does not irritate the nervous system by its stimulation, as it is a nerve builder and nerve stabilizer. The Master Hormone, however, on the other hand, stimulates the entire nervous system and stimulates the Thyroid, also the Posterior Pituitary; and by its active stimulation of the Hepatic, there becomes an over-stimulation within the inter-cellular spaces. This is caused by an increase in oxygenation, and a more rapid oxidation. This has a tendency to move toxic infiltration too rapidly, and it produces an irritation of nerve filaments and nerve peripheries, radiating to and over-stimulating the Posterior Pituitary. For this reason the Master Hormone cannot be alternated with the Hepatic Hormone while the system is overly toxic. Neither should any two Hormones be alternated that activate the same point, as it would be over-stimulated, thus producing an irrita-

tion and an inhibitory influence. This would retard the entire function that it sought to gain.

It is well perhaps to state here that Hormone Therapy is positive. It is not a conglomeration of Endocrines that function singly, but a Hormone picks up its chemical affinity and produces a positive function. It will either correct or distort. If a correct diagnosis is made and the therapy followed through properly, there will be a correction made of the chemistry which is distorted. But, if a wrong Hormone is given, the chemistry will be distorted more than ever, thus increasing pathological physiology and all disfunctions that follow in the wake of it.

Diet in Adrenal and Mammary Hormone Deficiency

DIET IN ADRENAL HORMONE DEFICIENCY

In Adrenal deficiency, the diet must be high in protein.

BREAKFAST

One glass of orange juice — One egg and bacon
Bread and butter — Coffee and cream
A glass of buttermilk

LUNCH

Chocolate malted milk with an egg, and wafers

DINNER

Beef steak with onions — Beets or lima beans
Potatoes with beef juice from steak — Bread and butter
String beans
A glass of buttermilk

The patient should drink six to eight glasses of warm water between meals.

DIET IN MAMMARY HORMONE DEFICIENCY

The diet should be high in carbohydrates and protein.

BREAKFAST

One glass of orange juice — One egg and bacon
Bread, butter with jelly — Coffee and cream
A glass of buttermilk

LUNCH

Chocolate malted milk with an egg, and sweet wafers

DINNER

Beef steak with onions — White bread and butter
Irish and sweet potatoes — String beans
Sugar beets — Date Torté

Six to eight glasses of warm water should be taken between meals.

Department of Nervous and Mental Disorders

Dr. Thos. J. Meyers

THE ETIOLOGY OF THE EPILEPTIC SEIZURE

In my work on the epileptic phenomenon, presented from time to time in other professional journals, I have attempted to show the connection between the seizure and disturbances in the metabolism of water in the body, and further, presented clinical evidence, that control of the fluid balance of the body made it possible to control the frequency of convulsions, many cases going indefinitely, perfectly free, as long as the prescribed regime was adhered to. However, complete alleviation is seldom accomplished by these methods. In my paper, "The Relation of the Tuba Cinereum in the Epileptic Phenomenon," I showed how various symptoms were related to the source of disturbances and traced pathways to demonstrate the mechanisms of the seizure. Lawrence Morgan of Cincinnati, in laboratory work upon the tuber cinereum in dogs, suggested that the nuclei tuberomammillaris, tuberis lateralis and substantia grisea tertii ventriculii, active in the production of convulsions, are so through stimulation of the adrenal, thyroid and parathyroid glands. He further suggests that these nuclei represent secretory centers in the brain for these glands. In experiments on dogs, muscular spasms ceased on ligation of one or more of the arteries to the thyroid and parathyroids. The seizure, he says, might be explained by a hyper-secretion of the adrenals.

The work of Conklin of Battle Creek, and also by Lennox and Cobb of Boston, with fasting in epilepsy, implies a possible hepatic involvement. The close alliance between the condition of the gut and the occurence of convulsions is a matter of record, and ventures the theory that the origin of convulsions may arise therein. My own work rather disproves this, and while we cannot ignore the importance of the alimentary tract in the condition, the primary cause must be looked for elsewhere.

I feel that the disturbing factor is in the brain itself. Work done by Louisa Burns, Forbes & Wolff, Olkron and others has irrefutably determined that the blood vessels of the brain have a sympathetic

enervation, and do contract down into spasmodic states under certain circumstances. Direct observation of the brain itself has shown a balancing of the exposed part during a seizure.

The significance of all this is that epilepsy is a functional exacerbation, brought on either by, (1) mechanical factors, or (2) chemical factors. In my previous work, I have dealt quite extensively with the mechanical type of case. I will here attempt to explain the other type. By chemical I mean those cases not demonstrating any mechanical interference with the functioning of brain tissue itself, and are presumably due to disturbances in the metabolism of brain tissue. These disturbances may be in the nature of irritants in the cerebro-spinal fluid, deficiencies in the diet, an imbalance in blood chemical elements or to a deficiency in metabolic catalysts in the brain cells, that is in Hormones. Irritants in the spinal fluid are either put there therapeutically or are developed in the wake of brain infections or infectious diseases. Toxic infiltration throughout the body, and the presence of acidosis is common. It is largely because of the influence of toxic conditions in producing convulsions that the alimentary canal has been accredited etiological importance, and it is true, that very often merely relieving bowel stasis is sufficient to bring about a cessation of seizures. Hepatic Hormone disturbances are present in a number of cases. I have one patient in mind that responded very well to therapy in which hepatic Hormone was used. Deficiencies in diet assume the nature of irregularities rather than the lack of specific items. One case under observation remains perfectly free as long as he is regular with his diet and living habits.

Imbalance in blood chemical elements is usually secondary to other conditions, but is characterized by either high calcium and low phosphorus content or derangements in sugar content. A case whom we fasted showed a high calcium and low phosphorus when living normally, but under the fast the findings returned to their expected figures. When the fast was broken—the phosphorus and calcium returned to their former level.

Endocrine deficiencies have been dealt with rather scantily in epileptic research, and the work done—very disappointing. Lawrence Morgan, as stated above, presented the suggestion that further work be done along those lines, and Harrower is very emphatic in his recommendations for epilepsy. Our own work is worthy of thought, and the suggestions offered given some credence, as clinical evidence seems to substantiate them. In the case mentioned above, demonstrating a distorted blood calcium and phosphorus content, there was in the history a period during which the patient was free from seizures for four months. Investigation revealed that during these months, the patient had imbibed rather freely in alcoholics. According to Larson, alcohol inhibits the posterior pituitary. In the encephalograms presented, note the impingment upon the path of the infundibulum, both from the anterior part of the sella and from an invagination of fluid down into the sella. Appraise also the extent of distention of the fourth ventricle and pontine cistern and calculate the effect of increased pressure on that area, in the nature of disturbed circulation, etc. This patient suffers several convulsions of the grand mal type per week. It is of further interest that he is definitely of a schizoid type of personality. If, as Larson states, the epileptic seizure results from impairment of pituitary function, we have etiological evidence here. Also we have an explanation for that group of epileptics whom Hoskins and Yakovlev term neurosomatic deterioration, and we class as tuber cinereum types. This group presents a paucity of physical findings and tends to deteriorate rapidly. Treatment so far has been of no avail. My cases, which have been under treatment, so far have responded very well—but as no epileptic may be considered cured until he has remained free, under observation for a period of five years, we cannot yet

FIGURE 1—Antero-posterior encephalogram showing deviation of third ventricle to left of midline. Note the enlarged fourth ventricle—a blending with the shadow of the right pontine cistern. The lateral ventricles are normal.

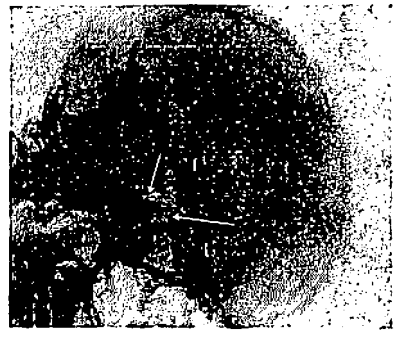


FIGURE II—Right lateral encephalogram. Note the enlarged pontine and chiasmatis cisterns. Also, note the impingment of the sella upon its outlet and the invagination of air down into the sella. The left encephalogram does not show this extensive cisternal shadow.

offer positive clinical evidence. As Rosett has shown, the seizure is merely an exaggeration of normal behavior. We are prompted to consider causative factors in the incidence of seizure movements under normal circumstances—and are finally forced to admit that no two cases of epilepsy are alike—and may be due to entirely different causes. My suggestion is that this problem be studied more thoroughly and that the practical application of Hormone Therapy be fitted to the individual and not the disease.

THE MAMMARY HORMONE

The Mammary Hormone is a complex single unit composed of an affinity group of Endocrines in proportion to their activation in the system. This Hormone is composed of the following:

Mammary .....C.
Adrenal .....Ca.
Pituitary .....P.

This Hormone picks up carbon, calcium and phosphorus in proportion to its activation. The first physiological act of the Hormone is that of activating the secretory cells of all Endocrine glands represented in the Hormone. This it does as self preservation in perpetuating its own output. Its major physiology is that of controlling the duration of menstruation. It does this by its inhibitory action upon the corpus luteum, and holding in check the menstrual influence of the corpus luteum upon the uterus. Besides this, the Mammary Hormone correlates with the Para-thyroid in fat anabolism, causing a distribution of fat over the bust.

A normal Mammary Hormone will hold in check the influence of the corpus luteum to a four-day menstrual flow, scarlet red. This is normal. If the Mammary Hormone is relatively high in its hormonic balance, there will be a flow of from four days to three and one-half days or even less. The higher the Mammary Hormone relativity the greater the inhibitory action of the corpus luteum reducing the menstrual flow to that of amenorrhea. On the other hand, should the Mammary Hormone be below par, or relatively low in the hormonic balance, it will not be able to inhibit the corpus luteum sufficiently, and there will be an increase in menstrual flow from four, five, or even six days or more, depending upon the deficiency of the Mammary Hormone.

The Mammary Hormone acts as a governor upon the menstrual flow because of the inhibitory action upon the corpus luteum direct from the Mammary and the contraction and cell tone of the uterus supported by the Adrenal, which is a member of the Mammary Hormone, also the Pituitary with its contracting effect upon cell tone. The Mammary Hormone correlating with the Para-thyroid in fat anabolism serves to hold in check the influence of the Thyroid Hormone on the Posterior Pituitary in the nervous system. The Mammary Hormone, through its influence upon the corpus luteum, holds in check the active hyperplasia which is produced by an over-active corpus luteum, both of the uterus and the Thyroid. With a relatively high Mammary Hormone, there will not be found hyperplasia or enlargement of the Thyroid gland. In an over-active or relatively high Mammary Hormone, there will be observed well developed Mammary glands which are firm and not sagging.

PATHOLOGICAL PHYSIOLOGY OF THE MAMMARY HORMONE

In pathological physiology or a deficiency of the Mammary Hormone, there will be a reduction in its inhibitory influence upon the corpus luteum resulting in an increased flow or menorraghia. As this deficiency becomes more marked, menorraghia will become more extensive, five to six days of scarlet flow. With this deficiency, which will represent approximately 25 per cent, there would likewise be a deficiency in the Adrenal exchange inasmuch as the Adrenal Endocrine is a member of the Mammary Hormone. With this reduction in the Adrenal Hormone, there would be a complex disfunction of Mammary and Adrenal Hormone. This would result in menorraghia plus metrorrhea; Metrorrhea being the reddish brown flow which follows the scarlet flow producing a flow of seven to eight days or more, depending upon the percentage of deficiency. With this 25 per cent deficiency of the Mammary Hormone, there will likewise be a lack of Para-thyroid support in fat anabolism, resulting in reduction of anabolism and a loss in weight.

In this complex disfunction and lack of inhibitory action of the corpus luteum, there would be an increased hyperplasia of the uterus, likewise the Thyroid. There will be a slight enlargement of the Thyroid gland. And, inasmuch as the Adrenal Hormone having become deficient, there would be a lowering of cell tone in the uterus, which causes uterine inertia. With uterine inertia there will be a heavy, boggy uterus. This congestion will produce a hyper secretion which manifests itself in leucorrhea. This same congestion will produce an irritation of nerve filaments and nerve peripheries which radiate to and over-stimulate the Posterior Pituitary, producing an inhibitory action upon the

Oophoron at twenty per cent hyper-active. This lowers the Endocrine secretion from the Endocrine field of the Oophoron, thus distorting the Oophoron Hormone and producing an Oophoron Hormone deficiency, causing a further complex disfunction.

OOPHORON HORMONE DEFICIENCY IN MAMMARY HORMONE COMPLEX DISFUNCTION

In this condition the Mammary Hormone has become deficient to the extent of lowering the Adrenal Hormone, and now with the pelvic congestion and irritation having over-stimulated the Posterior Pituitary and inhibited the Oophoron, we are now dealing with an Oophoron Hormone deficiency as well. The Oophoron now being relatively low in the hormonic balance leaves the Thyroid relatively high, which over-stimulates the Posterior Pituitary to a further degree. Now at 25 per cent hyper-active, the Posterior Pituitary inhibits the Adrenal, thus lowering its influence, and with the lowering of the Adrenal Hormone further, uterine inertia results. This same 25 per cent hyper-active Posterior Pituitary will likewise inhibit the Mammary and Parathyroid, further reducing the influence of both.

MAMMARY HORMONE COMPLEX DISFUNCTION WITH ADRENAL DEFICIENCY, OOPHORON DEFICIENCY, MAMMARY DEFICIENCY, PARA-THYROID DEFICIENCY. RELATIVELY HIGH THYROID EXCHANGE WITH A DISTORTED PITUITARY, POSTERIOR PITUITARY HYPER-ACTIVE 25%

In this case, we have the following picture of symptoms and syndromes. Menorraghia, metrorrhea, large boggy uterus, uterine inertia, leucorrhea, general pelvic congestion, loss in weight, hyperplasia of the Thyroid, as well as the uterus, increased pulse rate showing a relatively high Thyroid exchange and an over-active Posterior Pituitary. In this condition, there would be a lack of support on the part of the Adrenal and Oophoron to the Hepatic, and a consequent receding and lowering of the Hepatic Hormone. This results in a sub-oxygenation and a faulty oxidation. There will be a general increase of toxic material causing toxicosis, acid cellulitis. This toxic and acid condition of the inter-cellular spaces produces dysmenorrhea, inasmuch as it irritates the mucous membrane or the Endometrium. This same toxic irritation irritates nerve filaments and nerve peripheries, thus produces a further stimulation of the nervous system through the Posterior Pituitary.

As this condition progresses, the individual becomes more nervous and there will also be found beside toxicosis and acid cellulitis, auto intoxication, constipation, mucous-colitis, spastic colitis, hemorrhoids and piles. This individual will now be thin, nervous, irritable, flat chested; headache, insomnia, lack of strength and endurance will result.

DIFFERENTIAL DIAGNOSIS IN MAMMARY HORMONE COMPLEX DISFUNCTIONS

One must make a differential diagnosis between menorraghia produced by Mammary Hormone deficiency, and menorraghia produced by an over-active ovalation and corpus luteum due to irritation of the par-oophoron, by such as a sero-fibrinous tumor or other irritations of the par-oophoron that would over-stimulate the graphein follicles producing too rapid an ovalation, also increasing the size of the corpus luteum to a point where a normal Mammary Hormone could not inhibit sufficiently.

In these cases it may be found that the Mammary is relatively high or normal. The patient presents normal sized Mammary glands, well formed and firm, indicating a normal or high Mammary relativity. At the same time, there is menorraghia to the extent of six days' scarlet flow or even more, occuring perhaps every twenty-one days or oftener. It would then be quite evident that this menorraghia was due to an over-active ovalation and an increased corpus luteum, which had been activated by some irritation or stimulation either a cystic condition, semi-seros, of the ovarium or par-oophoron, setting up an over-stimulation of the graphein follicles, thus keeping up a frequent menstrual flow, scarlet red in color.

One must likewise differentiate between menorraghia and metrorrhea. Metrorrhea varies greatly from that of menorraghia, inasmuch as the Mammary Hormone is not responsible for metrorrhea. Neither is the corpus luteum so much responsible for metrorrhea. Metrorrhea is caused by uterine inertia and the uterine inertia is caused by lack of cell tone. The cell tone is deficient because of an Adrenal Hormone deficiency, and one must therefore differentiate between the menorraghia and metrorrhea. There are two strikingly different etiological factors responsible for the two different conditions, though they seem to be closely related, inasmuch as they both appear as a menstrual flow. There are other etiological factors responsible for the metrorrhea and menorraghia and that is the inhibitory action of the Posterior Pituitary upon both the Adrenal and Mammary Hormone through worry and mental strain.

Oftentimes there are cases that have been normal in the way of menstruation, and suddenly menorraghia commences in a mild form, gradually in-

creasing. Checking over the case from an etiological standpoint, it is found that the woman has been under considerable mental strain. This mental strain having over-stimulated the Posterior Pituitary, causing an inhibitory action of both the Mammary and Adrenal Hormones, resulting in menorraghia followed by metrorrhea. This must be differentiated from that of a Mammary Hormone deficiency.

THERAPY IN MAMMARY HORMONE DEFICIENCIES AND COMPLEX DISFUNCTIONS

The first thing to be considered in therapy is the removing of all etiological factors responsible for pathological physiology. In a simple Mammary Hormone deficiency, the Mammary Hormone should be given five grain units twice daily, preferably after meals. The diet should be general, and high in carbohydrates. In complex disfunction with Adrenal Hormone involvement, after etiological factors responsible for this disfunction have been removed, the patient should be given Mammary Hormone five-grain units, alternating with Adrenal Hormones five-grain units per day. The diet should be general, high in both carbohydrates and protein. Should menorraghia be due to the irritation of the sero-fibrinous tumor of the ovary, this should be removed by surgery and pathological physiology corrected. If this etiological factor has irritated sufficiently to cause an inhibitory action of the Adrenal and Mammary Hormones, so that they become secondary etiological factors in this disfunction, the therapy would be the alternating of Adrenal and Mammary five-grain units of each per day.

MENORRAGHIA AND METRORRHEA DUE TO WORRY

In a case of menorraghia and metrorrhea of this type, the etiological factor must first be removed, as a case could never be corrected with a continuation of the etiological factor or factors responsible for pathological physiology. Therefore, an individual would have to be relieved of mental strain or worry. In a condition of this kind, there is first, a distorted Pituitary. Posterior Pituitary relatively high, with the Anterior being inhibited. Second, there would be an inhibitory action of the Oophoron, causng a relatively higher Thyroid exchange and a further stimulation of the Posterior Pituitary causing nervousness, irritability, and a greater inhibitory action upon the Anterior Pituitary, thus the individual worries still more. This over-active Posterior Pituitary now having inhibited both the Adrenal and the Mammary, producing menorraghia and metrorrhea. There would likewise be an inhibitory action of the Para-thyroid.

The individual would now present a picture of Mammary Hormone deficiency, an Adrenal Hormine deficiency, Oophoron Hormone deficiency, Para-thyroid Hormone deficiency, with a relatively high Thyroid in the exchange and a distorted Pituitary with a hyper-active Posterior Pituitary. With these four Hormones below par, the entire Endocrine exchange will have receded and is now considerably below par. This case could not be corrected by alternating any of the various Hormones, as a Hormone can never become higher in the hormonic balance than that of the exchange. The exchange is the general output of the Endocrine system. It would then be necessary to raise the exchange to par by giving the Master Hormone five-grain units per day, alternating with the next Hormone showing the most pronounced syndrome, which would be the Adrenal. This should be given over a period of sixty days. The diet should be general, high in protein. After sixty days have elapsed, the Mammary Hormone should be alternated with the Adrenal Hormone five-grain units of each per day over a period of sixty days. The diet should be general, high in both protein and carbohydrates.

Following this, the Oophoron Hormone should be given five-grain units twice daily. The Oophoron Hormone, as it becomes higher in the exchange, will activate and sustain the Anterior Pituitary, producing more mental control, a better mental balance, giving the individual more courage and confidence, therefore will not be prone to worry. The doctor, however, should be positive in his diagnosis of pathological physiology, because if he does not give the proper Hormone, he will distort the case and it will become worse instead of better.

Due to the vacation season, we have found it necessary to combine the JUNE and JULY ISSUES. This caused delay in publication. All subscribers will be advanced so no one will suffer financial loss

COLLEGE NOTES

MISS GWEN REED, Editor

COLLEGE EDITORIAL OFFICE

We have had so many inquiries asking whether the College grants diplomas to the graduates. In answer to this we will say yes. The Colloge is chartered and authorized to grant diplomas conferring the degree of Doctor of Endocrinology.

Other inquiries have come in asking whether or not doctors can practice Endocrinology without being a graduate of same. Yes, doctors, there are many physicians who set themselves up as Endocrinologists, who are not graduates of any reputable College of Endocrinology.

At this writing, there is a class of fourteen doctors sweating over their examination papers. We hope they will feel better when they see their grades.

At a meeting of the College officials and faculty, Dr. Biddle, of Los Angeles, was appointed President of the Board of Governors. Dr. Ewart, of Long Beach, was appointed President of the Faculty. Dr. William Bartosh, of Los Angeles, was appointed head of the Department of Surgical Pathology, and Surgical Diagnosis.

The following graduates of the College are now working hard preparing themselves for a final test to qualify as lecturers. Here is hoping that we will be seeing them at the opening of the College in the fall. Let's not spy any notes peeping out of their coat pockets. Take this as a warning, doctors! Dr. Davidson, Dr. Pflueger, Dr. Pope, Dr. Bigelman, Dr. Holmes, Dr. Groth, Dr. Ewart, Dr. Diebold, Dr. Myers, Dr. Bartosh, Dr. Snell.

We think it would be a good idea for some of the would-be lecturers to orate before a mirror, so that their tongues wouldn't get tangled up in terminology and phraseology in Endocrinology. Endocrinologically speaking, these difficulties should be ironed out before the fall term opens.

Dr. Larson departed last week for San Francisco and the bay section, where he is giving a series of lectures to the profession. The lectures are to be given at the Hotel Oakland in Oakland on Monday, Wednesday and Friday evenings at 7:30 P.M. In San Francisco at the Stewart Hotel, on Tuesday and Thursday evenings at 7:30 P.M.

We are very sorry to hear that Dr. Pflueger has been ill. We have missed his contributions to the Journal, as they were very valuable. We hope to see his smiling countenance at the fall opening.

Dr. Snell seemed to be very much puffed up over the fact that he has succeeded in curing a case of arthritis that has suffered for eighteen years, and received very little help, even though she had been to most of the outstanding clinics of the country. Hard work has its reward.

Due to vacation time, the June and July numbers are combined in one, carrying two installments of the course; also two Hormones.

Listening In On the Profession—Continued from Page 13

Dr. Norton: "It is a peculiar and characteristic condition of some women."

Dr. Dare: "What are the specific things that produce this characteristic condition in some women and not in other women?"

Dr. Norton: "Well, that is something that the profession knows nothing about."

Dr. Dare: "I grant you that is true in orthodox medicine, but we do know today the pathological physiology responsible for these conditions. I shall be glad to explain."

(To be Continued in the Next Issue)

CASE CITATIONS

(1) Miss A., age 38; height five feet six inches; weight, 141 pounds at time she commenced treatment.

History of constipation for many years—neuro-muscular pains in limbs, loins and back, particularly right shoulder and hip.

Menstrual cycle regular, but of only eighteen hours duration. Color reddish brown; consistency thin. Great amount of pain two or three days previous to flow; in fact, severe enough to necessitate her absence from work practically every month. Pain always ceased as flow started.

History of tonsilectory and hemorrhoidectomy some few years ago after which time clonic therapy was instituted and continued twice a week for a period of three months.

Patient was given Master Hormone alternating with Hepatic Hormone (total of fifteen grains per day), for sixty days; then Oophoron Hormone and Hepatic Hormone alternately (total of fifteen grains a day) for thirty days. Then Oophoron Hormone and Adrenal Hormane alternately (total of fifteen grains per day) for sixty days.

First menstrual period — pain and discomfort about same as usual; time increased to thirty hours.

Second menstrual period — pain much reduced both as to duration and intensity; time increased to two and one-half days.

Third menstrual period—very little pain a few hours before flow started; time increased to three days.

Last menstrual period—was free from pain entirely; in fact, was unaware of approach of period until flow started. Duration, four days; color, scarlet red throughout.

Patient is very much improved in health and spirits. Bowels normal, appetite good.

(2) Mr. C., age thirty five; weight, 135 pounds; height, five feet, ten inches; war veteran; injured 1918, upper dorsal region. Had resection of seventh rib, left side. Developed Angina Pectoris some time later, and, after eleven months of treatment with sedatives with no beneficial result, was sent to California to die.

General care and treatment eased him for a time, but the greatly dilated heart, together with mucous colitis, gradually undermined his otherwise splendid constitution. The Angina paroxysms became more frequent and severe, until at times the major portion of his body would become numb.

The endocrinological examination revealed an acute dilitation of the heart due to toxicosis. When you drive a Posterior Pituitary against a good Adrenal, rapid regurgitation and dilitation result. Angina Pectoris produced by infiltration of toxic substances and infiltration of calcium. Low Adrenal Hormone disfunction will cause calcium infiltration in red muscle fibre and even in bone.

Treatment—Patient was placed on Master Hormone and Hepatic Hormone alternately (total fifteen grains per day) for five months. The Angina paroxysms ceased *absolutely* after the third week, and patient has had none since. The intestinal spasms and mucuous storms, however, were augmented for a time—so much so that the Hepatic Hormone had to be discontinued two days a week. Hemorrhoids were removed and colonic irrigations instituted. Irrigations following a mucous storm after brought strings of mucous a foot or two in length.

An eliminative diet with alkaline balance was prescribed, with an abundance of water (warm water)—this last item, the drinking of an abundance of warm water was specially stressed, a gallon or more a day.

Patient at present time is taking a few five-grain units of Adrenal Hormone a week, is able to exercise vigorously, spent a couple of week-ends in the mountains walking and climbing along with the rest of the party.

Los Angeles H. R. HOLMES, M.D.

COMPLIMENTARY COPY

To Graduates and Friends