

SYNTONIC PROCEDURES INDICATED BY CHROMOGRAPHY

By

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“It is safe to assume that all endocrines are directly or indirectly under nervous control”, so states Dr. J. Bertram Collip of McGill University in his most recently published paper on “The Hormones”. That syntonically we have control over the Thalamus and therefore the autonomic and to a large extent the voluntary nervous system, has been proven conclusively. At birth our endocrine pattern is set in action, and so functions throughout life being effected by eternal environment and the nervous system.

Showing the effect of the nervous system on the endocrines and on life, let's think for a moment of the report of the combined five great insurance companies of this country and the great Scandavian Life Insurance Society. “The occupational group of individuals classified as the longest lived individuals in the world are the deep sea fisherman”. The physical culturist smiles and says, “yes, because the fisherman exercises in the out of doors, lives a simple life and receives a great deal of sunshine”.

These Five insurance societies state that “the watchmaker is the second longest lived group of individuals in the world”. Now the physiologist smiles and says “yes, because the watchmaker's world is confined to his bench: a radius of not over twenty-four inches. He has absolutely no other source of worry and therefore has the minimum wear and tear and fatigue of the nervous system and the endocrines”.

We don't just happen to grow, or happen to think along certain lines, or our behavior pattern isn't by chance, but our physical set-up, our intellectuality, and our behaviorism is largely controlled by our glands of internal secretion.

Eighty-seven percent of our contact with the world is through the eye, which are dependent on various balance. Then as we must think of the autonomic nervous system and the endocrines as a unit it follows whatever we do in bringing about ocular nervous adjustment, must also react on all supportive ocular functions.

The hormone adenine raises the blood sugar by virtue of its ability to cause glycogen, which is present in the liver and muscles to break down to glucose. Dr. Collip recently tells of an example of the effect of two hormones in the same subject.

“A diabetic patient taking the insulin treatment, realized one morning as he was walking down the street, that he was developing a hypoglycemic reaction. Finding that he had forgotten to provide himself with a chocolate bar, he proceeded to the nearest drug store. By the time he had reached the store his gait was unsteady and his speech incoherent. He tried to explain to the pharmacist what he wanted, but the latter, fully convinced that he was dealing with a drunken man threw him into the street.

The patient still conscious and terribly enraged at being so treated, promptly recovered and proceeded to another store unaided, made his wants known and continued on his way.

Obviously, we have here an example of the activation of the adrenals as a result of anger, leading to the release of enough adrenaline to cause an increase in the patient's blood, sugar sufficient to restore his equilibrium and his powers of speech.

Should such a patient needing optometric attention be in your office about the time of such a hypoglycemic reaction, I sincerely hope the optometrist would not make the mistake of the pharmacist and give an application of N'L, αω, followed by μν, to cure a “hang over” or take care of inebriation with ocular manifestations.

Now let us think of this thyroid syndrome reaction. The thyroid stimulates the medulla of the adrenals and inhibits the pancreas – remember the adrenal cortex inhibits the thyroid. Thyroid hormone enables liver to respond to stimuli promoting glycogen discharge, thus affecting insulin activity. Thyroid hormone probably simulates the mechanism by which adrenaline acts. “Pituitrin antagonizes the action of the internal secretion of the pancreas-insulin. Thus, if pituitrin and insulin are injected simultaneously, in suitable proportions, the pituitrin diminishes or abolishes the fall of the blood sugar, which is usually caused by the insulin-burn. If insulin be given in large enough doses to produce convulsions and hypoglycemia in a normal animal, and injection of pituitrin causes a rapid rise of the blood sugar, and will stop the convulsions. The explanation of these results is uncertain: “Pituitrin may directly neutralize insulin, and in addition it may convert the glycogen of the liver into glucose.” - Sampson Wright.

Further, in hypocalcemia the endocrine effect is that of

hyper-insulinism
hypoadrenalism
hypothyroidism
Hypopituitary

Trusting that the syntonist would keep these points in mind he would help to bring about equilibrium and restoration of the patient's speech by the following application: N'L 3", αδ 5", μδ 5", αθ 5", μθ "αθ S10".

Of course, as soon as the patient had some “pickup” in recovery he would be urged immediately to take

the chocolate bar and his regular procedure of treatment, explaining to him that the emergency application was a nervous irritant only. We are not treating the application was a nervous irritant only. We are not treating the ductless glands, but it cannot be denied that our syntonic control of the autonomic nervous system influences the endocrines as our light wave frequencies stimulate or depress the sympathetic or parasympathetic nervous system. This influence at the present time must not be explained or mentioned to the patient. We are bringing about ocular nervous adjustment, and that nervous reaction is the needed stimulant in this case.

In January of this year, Dr. Thorne M. Carpenter of the Carnegie Institute of Washington, speaking of the fate of alcohol in the body, said "Alcohol itself cannot be stored by any organ of the body. The amount present in any organ depends entirely on the amount of blood circulating through the tissues of that organ.

The highest amount of alcohol per unit of weight goes into the blood, and nearly as large an amount per unit is found in organs well supplied by blood, namely the brain, kidneys, spleen, heart, lungs, and liver.

What happens between the time it gets into the blood and organs, and the time it disappears is unknown.

Hormones may be greatly concerned in this question. Injections of insulin makes alcohol disappear much faster, in fact it disappears so fast it seems impossible that it disappears due solely to the burning of the alcohol.

Work and exercise – muscular exercise – did not hasten the removal of alcohol, neither did the drinking of large amounts of water and fluids, but stimulation of the pancreas and the adrenals did.

Alcohol is easily absorbed in all tissue and the only effect of muscular exercise is to carry off a slightly greater amount through the lungs, but not much alcohol is dissipated this way.

Dr. Carpenter showed that chickens became severely drunk by breathing alcohol.

In my practice of syntonic optometry, I have on several occasions greatly aided in clearing up the aftermath of the effects of partial inebriation in patients who were keen observers, and who carefully recorded for me the physical reaction of light wave frequencies used in their treatment.

My colleagues will find the following syntonic prescription of value, N'L 3", αω 10", μν 5", αω 5", μν 10".

Since my paper was published in the Syntonogram – the January and February issues of this year – I have had requests for further case histories and information on how my diagnoses were made, and what indicated syntonic frequencies are to be used in a given case.

Before presenting a series of case histories, may I again submit the conclusions of my fellowship thesis.

CONCLUSIONS

The DuBois Reynold law, "continuous stimuli produce no effect upon nerve fibres, which respond only to changes in Stimuli", may seem contradictory to some of the laws of optics, but this we do know, the continuous increase of any stimulus causes cessation of all nerve response. Remembering the DuBois Reynold law it would seem physiologically correct to assume that the changing of the stimuli – wave optic frequencies – in stimulating or depressing either side of the autonomic arc- sympathetic or parasympathetic – would increase the resultant effectivity of parasympathetic – would increase the resultant effectivity of stimuli – syntonic application. Thus we find in clinical practice the altering of the frequencies in or during a syntonic application, stimulating or depressing the sympathetic or parasympathetic are in various degrees working on either side of the equilibrator as indicated, does aid in reaching complacency or the syntonic level more quickly and more effectively than in using the standard or classic syntonic prescriptions.

Presuming the tentative explanation of the cause of change in the fields of color vision given in the body of this paper to be exact within a few details, and remembering the "all or none law", "a nerve under stimulation always reacts to its greatest capacity so that the threshold stimulus produces as much effect as any greater stimulus". Then, the sudden changes in the fields of color vision, the chromographs showing endogenous or exogenous toxemias, or a quick return to the fields of expected normalcy, are easily understood and we are entitled to believe that chromography has a meaning of real significance to syntonist.

Clinical investigation in the field of chromography over a period of seven and one half years has proven that the alleviation or elimination of existing foci of infection and the raising of body resistance is necessary to carry a patient through to complete ocular recovery. If foci of infection is eliminated and general body resistance raised, as indicated, then chromography definitely shows the progress made in syntonic and other corrective procedures.

The tentative neuro-physiological explanation of Chromography so closely parallels the indicated syntonic procedure in a given case, that this understanding makes possible the establishment of the syntonic level with more ease, and the altering of the wave optic frequencies further facilitates improvement.

The autonomic nervous system and the endocrine glands must be thought of as a unit according to all authority in physiology, "as the autonomic nervous system is, so are the respective endocrines". Endocrinologists recognized the value of and necessity of ocular diagnosis in their highly specialized field, therefore, chromography with syntonics will take on greater valuation in the field of clinical research and investigation in endocrinology. Syntonic Optometry has much to contribute in the future to the above mentioned field of research.

In presenting these case histories, it was thought best to present them in a definite routine of form, to conserve space and to make the histories more readable. I have used the following form as a standard routine of procedure for this paper.

- I. Date, Name, age vision old Rx, case history most important symptoms, occupation
- II. Diagnosis and case typing
- III. Chromographic evidence
- IV. Endocrine indications – physical basis
- V. Syntonic and orthoptic treatment
- VI. Results

HISTORY CASE I

Mrs. A. M. Murphy, June 18, 1935, age 65.

Work about home, and near work for pleasure. Can't see well, vision blurs, wants to sleep all the time, always tired and sleepy. Eyes tired because can't see well, inclined to be dizzy a good deal of day. Eye ache at near work and near vision as well as distance vision blues. Visual acuity O.U. 60 per cent, each eye 49 per cent Ives. Was not wearing glasses except for near work.

II. Case Typing: CI type $\frac{15}{6-10-16}$ - 9 - 22- 17- but the 11 was low, otherwise exact type.

Low hyperopia and presbyopia. Media of Crystal lenses hazy, smoky and extremely hard to penetrate. Couldn't see fundus for true ophthalmoscopic diagnosis. Medical diagnosis of Diabetes mellitus, - insulin control. Corrected vision practically same as uncorrected, with my prescription of O.D. +.75 Axis 75, O.S. +75 sphere with +2.00 O.U. addition.

III. Chromographic diagnosis.

All fields of chromo constricted but blue, more constricted in proportion and constricted most in vertical meridian showing endogenous toxemia of an abdominal nature.

IV. Endocrine indication.

Patient has Mellitus Diabetes or sugar diabetes, showing faulty thyroid-adrenal-pancreas relationship in carbohydrate metabolism and faulty relationship in formation of blood glucose.

Physically overweight, at times mentally sluggish and almost goes into state of coma. Syntonic pyknic type. Has all characteristics of tendency toward hyper insulinism, insulin control three times daily. Appearance of true and severe diabetes.

V. Syntonic indications of treatment would be frequencies to normalize the parasympathetic nervous system which is so entirely out of balance, and the chromographs show that the syntonic frequencies must act as sympathetic stimulants, stimulating the thyroid and post pituitary.

Frequencies applied: 1 N'L 5", $\alpha\delta$ 10", $\alpha\theta$ 10", $\alpha\theta S$ 3".
1 N'L 5", $\mu\delta$ 10", $\mu\theta$ 10", $\mu\theta S$ 3"

This procedure if used too long at one application would tend to nullify or decrease the effectiveness of the entire treatment as mentioned in my former paper. Dr. Dalton calls this method of altering frequencies the step ladder method basing the procedure on the physiology described in my former paper and he used it with amblyopia and paresis of the extra ocular muscles, where very intent stimulants are required. In past six months Syntonic Rx has been changed to: N'L 3", $\alpha\delta$ 5", $\mu\delta$ 5", $\alpha\theta$ 5", $\alpha\theta S$ 8". Lenticular Rx was tinted, so treated with control spheres +2.50 O.U. only.

VI. Results:

This patient has been treated for two months and then resting two months, for a period of almost two years.

All ocular discomfort has been alleviated. Vision is clear and normal at distance and near, with lenticular Rx, the media, - lens, vitreous, and aques - is clear and free from opacity.

The patient is not bothered by sleepiness or tendency to coma. She has a great increase in endurance and enjoys walking several miles a day. Never feels eye fatigue under normal conditions of visual use. On March 10 of the year 1937, Mrs. Murphy was re-examined and new lenticular prescription given her with normal and expected changes in the dioptric power of the lenses. Mrs. Murphy has reported to me once or twice a week for four months since this change in lenses and there is no change in the condition other than recorded.

CASE II

I. Robert Rigney, August 14, 1936, age 10 years 7 months. Vision - 20'20 minus either eye an O.U. Right handed, left eye dominant. Eyes had been examined twice by medics who said eyes are perfect. Health always poor, has had bronchial asthma since three years old, only a few months of the year free from this bronchial asthma. Moved from beach city to Riverside to see if climate would help strengthen him. Has had all childhood diseases.

Came to me because he had migraine type headache every ten days and has had these headaches since four years of age. Headaches come on late in morning and last throughout the day, is able to sleep it off but always very sick at stomach and vomits. Headache all over head and much worse in front of head, frontal and very severe low over eyes.

When these headaches started parents thought stomach trouble was cause. Has been under the care of many physicians because of ill health but none of them have ever helped or stopped a headache. Had heard of my syntonic practice and parents thought I might find and correct or at least help the headaches.

II. Case Typing:

The patient showed by skiametry that he was a pseudo myope. Typed B2 5-14 and showed
9-11-17

A chain of toxic interference also making a complete A type case _____
3-13-4-8-11-17.

Obviously, this case would eventually evolve itself into a C2 toxic Add. Fat. case if left to follow and uncorrected pathway of control.

III. Chromographic Diagnosis. Showed abdominal toxemia, by constriction of blue field and collapse of blue field in the vertical meridian. This further shows the parasympathetic nervous system receiving a high degree of fatigue which would in time cause all the fields of chroma to be constricted. Further case history showed chronic constipation of years standing. As the parasympathetic loses dominance and the sympathetic is highly activated the chromographs show a collapse of chroma in all fields.

IV. Endocrine Indications:

This boy appeared as an extreme asthenic. Extra ocular tests showed the lateral incisors probably were missing entirely. This was confirmed by X-ray of this mouth. All indications pointed toward lack of stability of the parasympathetic nervous system and a hypo gonadal condition.

V. Syntonic:

Syntonic care consisted of an application of N'L 3", δω α", ωN 8", δω 7", ωN 7", to stimulate the parasympathetic. This prescription was altered with N'L 3", α 1", αω 15", ωN 12", which acted as a gonad stimulant, adrenal stimulant and parasympathetic normalize. This syntonic Rx applied with plus 4.00 control spheres which was a slightly more than the normal +2.00 to 2.50 of the 21 finding, plus the +1.00 finding of 21 in this case.

VI. Results:

This syntonic care was given over a period of three months and consisted of 36 applications. No lenticular prescription was given. All headaches have ceased and has had no headache since the fifth treatment, August of 1936. Health is generally improved. Observation examination made February 1st, 1937 all difficulty cleared up. Observation examination made April 22, 1937 revealed perfect ocular comfort and no return of headache.

CASE III

I. On November 23, 1936, Mrs. Pearl Rinkleib, age 26, metric diagnosis. Mrs. Rinkleib had been to a number of medical eye doctors because being trained as a registered nurse only medical eye men could be considered. Her vision with or without her lenticular correction was 100 per cent either eye and O.U. Her lenticular prescription was O.D. +.50 cylinder, axis 180, and O.S. +25 +50, axis 180. Has had to give up nursing for several reasons, the main reason being loss of sleep or night duty made her eyes bother more, and apparently caused more headache. These headaches were frontal from eye fatigue, going to the back of the head and neck. Headaches before menses and during menses – back of head and neck No. 6 and No. 7 – very severe.

However, since the onset has, she passed through the menses period without these extremely severe headaches, causing physical and mental illness. Shows, football games and near work causes headache and nausea. Cannot focus eyes well and columns of figures become mixed up and transposed. Mrs. Rinkleib is at present doing clerical work demanding critical seeing, causing less eye discomfort than her duties as a nurse.

No form of medical eye care has helped the eyes or at any time stopped the headaches. A physician, young in years of medical practice had diagnosed Hypopituitary and treated hypo post pituitary for one year – the year of 1935. The menses discomfort was greatly relieved but no relief was had from headache.

This medical physician had told the patient that her endocrine condition would be considered by any good man, but to her despair, the entire group of medical men examining her eyes had laughed at the idea of endocrine conditions effecting vision or the eyes.

II. The case typed a B3 5-9-14. The pupils were of average size, contracted well but showed a 10-16 slow Alpha Omega pupil reaction. My prescription in lenses at the time was O.U. +1.12 sphere, with the indicated cylindrical element.

III. Chromographic evidence, graphs normal, cues toxic free or a high degree of tolerance to any existing toxic agent in the body. This chromographic evidence indicates the need of sympathetic stimulants in syntonic application.

IV. All physical indications of hyper anterior pituitary, and dusky, phletoric, dark spotted skin.

V. My syntonic prescriptions: N'L 3", αω 17", ωN 10", for pupils, N'L 3", μ 10", μδ, flash 15 – μ to suppress and steady the ant. pit. and μδ, flash to stimulate the post. pit. – N'L 3", αω 12", μ 15", - αω to stimulate the gonads and ant., pit, μ to stabilize the ant. pit. These prescriptions were given on a one, one, one combination and required a +2.00 sphere, O.U. worn over her lenticular Rx during treatment. During the second month of treatment orthoptics on the Telebinocular were added to increase stereopsis and fusion.

VI. Results, all ocular discomfort alleviated, no headaches at any time, menses free from discomfort and headache. Increased sphere of lenticular Rx to +1.50 with indicated cylinders. Eyes never become tired.

Observation progress reports covering seven months from time of diagnosis show that we have stabilized ocular function and relieved this patient from perhaps a life-time of suffering. We have only prescribed optometric care and treatment, but again in this case a keen cutting blade has been placed in "the broken sword of optometry".

The following case report appeared in "The 1937 Book of Optometry", published in April by the New York State Optometric Association. I will review this case in full in order that the procedure of correction will be of greater value.