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Iridology, its concept and practice

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IRIDOLOGY, ITS CONCEPT AND PRACTICE

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G. D. B.

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CHAPTER I

THE PROBLEM AND ITS SCOPE

The Problem

Throughout the years of medical history there has been an evolvement of many fascinating diagnostic procedures. Returning to ancient times, there can be found accounts of sickness and death attributed to evil spirits and demons, with each witch doctor treating according to the times and the specific culture. Many of these methods of diagnosis were naturally short lived, while others have been sustained by a few believers for some time - perhaps to eventually become lost in history, or as in some cases, proven ultimately to have a valid place.

There are distinct motives behind all attempts to seek better methods of diagnosing human ills. The ideal of men has been to achieve the goal of predicting and controlling the future. Perhaps crystal-ball gazing and astrology are extreme examples of this, but as applied to diagnostic practices there is always the hope of an objective, fast, comprehensive, and specific method which can be applied with a minimum of complication and discomfort to the patient.

A study of each of these practices as they have taken their place in health care history is indeed quite interesting. One of the most unique and intricate of them all, however, is iridiagnosis.

In the latter part of the 19th century, this new method of diagnosis found its beginning in Europe. Iridiagnosis, or diagnosis from the iris of the eye, has not died through the years and has a small group of followers in this country that are presently employing this method. Because of its direct association with the eye, it should be of a particular curious interest to optometrists and ophthalmologists.

Need for the Study

Iridiagnosis has been taught in few, if any, schools and therefore has not formally confronted students of the healing arts. However, men have had available to them the written works of iridiagnosticians and the personal instruction of those practicing by this method. If human beings are being diagnosed and treated from the signs in the iris, then this method of diagnosis should be proven to have a definite clinical validity. Validity of its proposed clinical application would, of course, make it extremely valuable to those treating the eye from the standpoints of recognition of diseased organs and referral of patients. If proven invalid, eye practitioners should have at least a basic knowledge of the subject in order to discuss properly the clinical successfulness of such diagnosis as determined by statistical study.

Delimitations

A complete study of the entire scope of iridiagnosis would require extensive time and effort as its ramifications are many. Presented in this paper is a background of the history of iridiagnosis and some of the men who have worked on the subject. Included is a study of iris circulation and iris neurology as an aid in understanding the theory of iridiagnosis. Explanation of the clinical findings that are taught by iridiagnosticians is presented in detail to allow the reader to understand exactly what signs are claimed to represent pathology.

The basis of iridiagnosis is sectired reoresebtatuib if the body organs in the iris of the eye. It is this basic sectored representation which receives study for its clinical value in this paper. All others aspects of iridiagnosis are included for the interest of the reader.

Definitions

"Iridology is the study of the iris whereby the examiner can tell from the markings or signs in the iris of the eye the reflex condition of the various

organs of the body," (Jensen).

"Iridiagnosis is the term used by many authors, meaning the same as iridology only perhaps inferring that it is the last word in diagnosis," (Jensen).

CHAPTER II

HISTORY AND PREVIOUS RESEARCH

Iridiagnosis, or iridology, as it is preferably termed by its present advocates, is assigned the following history in Bernard Jensen's 614 page volume entitled, "The Science and Practice of Iridology."[1]

"Ignatz von Peczely of Ergovar, near Budapest, Hungary, discovered nature's record in the eye by accident when only a boy of ten years. While playing with an owl, he happened to break one of its legs. He also happened to notice the appearance of a dark stripe in the lower region of the iris of the bird. Eventually this black streak became a tiny black spot around which were white lines and shading. This incident made a lasting impression upon the mind of the future doctor, and when working later in the college hospital in surgical wards, he had a good opportunity to observe the eyes of patients after accidents and before and after operations. In this manner he was enabled to construct the first chart of the iris."

As far as is known, von Peczely did not follow up the relations suggested by the changes in the iris of the owl until about 1861, when he was treating his sick mother. At the age of 36 he became interested in medicine and studied first in Budapest in 1862. In 1864 he went on to Vienna. In 1866 he started practicing in Budapest and published his first book on the iris, "Discovery in the Realm of Nature and Art of Healing." This work was made known in Germany by August Zoeppritz. Emil Schlegel of Tuebingen published a book on the results of von Peczely's work.

There was also a Swedish homeopath and clergyman, Reverend Niels Liljequist, who discovered and improved many of the methods of iris diagnosis and brought this work to America. His writings are translated into two volumes called "Diagnosis from the Eye," (Jensen).

In Germany, Peter Johannes Thiel and a Pastor Felke contributed to the European spread of iridology.

Today, says Jensen, after many years of research work by prominent doctors, for the most part medical men, all organs of the body have been represented in iris charts. In this country Henry Lahn, M. D., wrote the first book in the English language on this new method of diagnosis. Lahn, a native of Austria, came to this country and taught iridology to Henry Lindlahr, M. D., of Chicago. Lahn's book on iridology was entitled "Iridology, the Diagnosis from the Eye." This book is copyrighted and is in the Congressional Library in Washington. The sixth edition was published in 1904. Lindlahr, as Lahn's student, gave serious study to iridology and applied it in his work in natural therapeutics. He wrote a reference book entitled "Iridiagnosis," which is volume VI of his library of nature cure. Haskell Kritzer, M. D., wrote a textbook called "Iris Diagnosis and Guide in Treatment." Marko J. Petinak and F. W. Collins have contributed charts. Probably the best known recent contributor to the development of iridology in this country is Richard M. McLain, N. D., D. C., of Oakland, California, who has been teaching this study for years.

In the past the provisions for learning iridology have been limited, as very few schools and colleges have taught it. Most of the men who know iridology have had to learn it by their own efforts. It has been the endeavor of Jensen to correlate and to bring together into one volume all published material, to include his experience, and to present material which he feels will teach iridology logically, by giving practical explanations and a practical foundation upon which to base conclusions.

Although Jensen includes many enlarged color photographs of irides in his book, they are not associated with his case history reports. His entire chapter of case histories utilizes iris drawings, rather than photographs. It would seem mandatory that the only valid case history relationship would be one in which

actual photography of each patient's irides were submitted as evidence. The many books written on the subject make explanations and drawings, but none include actual photographs of the irides used in attempt to prove the clinical validity of iridiagnosis.

CHAPTER III

METHOD OF SOLUTION

In order to make a study of the clinical application of iridology, it seems logical to observe the irides of patients with known pathology, for the signs that would be expected to be found in the sectors of the irides representing the locations of the pathology. Jensen says that the kidney area of the iris is one of the most definitely diagnostic sectors known in iridology, and has considered it a permanent area in his charts. For this reason, the selected group of patients for this study is one whose subjects have been diagnosed to have presently, or have had recently, an active kidney disease in which there is an actual destruction of tissue, or at least a highly inflammatory involvement. These patients have been diagnosed by the previously acknowledged physicians, and compose the selected group of ten persons.

The control group is needed for a comparison of irides in ten subjects who have been selected as a random population with no history of kidney disease.

The nature of this type of diagnosis makes it desireable that the irides should be photographed and included with the case history for purposes of observation by the reader. Each photograph has the kidney area indicated for the purpose of clarity in diagnosis. In order to ensure unbiased analysis of the iris photographs, both groups of ten patients (forty photographs) were combined and mixed in identity before diagnosis was made. Diagnosis was then made for the presence or absence of signs in the kidney areas of both irides of each subject by W. Martin Bleything * and the author. Diagnosis for each subject was made positive if at least one iris showed signs in the kidney area which were diagnostic in the opinion of at least one of the two analysts. Both irides of each subject were analyzed

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* (See acknowledgments, page II.)

together. Following diagnosis, the iris photographs were returned to their appropriate case histories for comparison.

In the statistical analysis of the data, the control group is evaluated by comparing the number of cases which have been diagnosed to have kidney disease from the iris photographs, to the total number of subjects in the selected group. The significance of this figure is discussed in terms of the probabilities of the results obtained occurring by chance in a group of this number.

The control group is evaluated by comparing the number of negative iris cases to the number of subjects in the control group. The significance of this figure is discussed in terms of its probabilities. The significance of the two groups as compared to one another, and the probabilities of achieving these results by chance is also discussed.

CHAPTER IV

THE NORMAL APPEARANCE OF THE IRIS

In discussion of the normal appearance of the anterior surface of the iris, Wolff[2] describes two zones: the outer ciliary zone, and inner pupillary zone. They are separated by a series of ridges near the pupillary margin which roughly form a circle due to the underlying vessels, and are termed the collarette (the circulus vasculosis iridis minor). The two zones may often differ in color.

The ciliary zone presents a series of radial streaks. If the iris is highly pigmented, as in the dark races, the anterior surface appears smooth, homogeneous, and velvety; the deeper structure being masked by melanin.

In the region of the circulus minor there are many pit-like depressions called the crypts of Fuchs. At these points, Wolff says, the anterior endothelium and the border layer of the iris are deficient, which enables fluid to pass quickly in and out of the iris; for instance during contraction and dilatation of the pupil. Similar crypts are present near the root of the iris, but are small and are not seen in the living eye.

It is of interest to note that in the new-born neither collarette nor crypts are present. They develop later.

Wolff quotes Salzmann in describing a whitish band about one millimeter in width close to the pupillary border. He says this is the sphincter pupillae, observable when the pupillary zone has an especially delicate structure.

CHAPTER V

IRIS NEUROLOGY

To understand the neurological theory of iridology, a review of the blood vessels supplying the iris should be made. It is accepted that nerves generally follow the paths of arteries, and therefore the knowledge of the structure of the vascular system will aid in the understanding of iridological theory.

Circulation

The vessels form the bulk of the iris. They run radially for the most part, giving rise to streaks which can be seen on the anterior surface.

At the root of the iris and near the pupillary margin there are circular anastomoses, known as the circulosis iridis major and minor. The former is arterial, and lies in the ciliary body in front of the circular portion of the ciliary muscle. The name circulosis is a misnomer as the iridis minor does not form a complete circle.

These vessels are derived from the long anterior ciliary arteries in the following way: the two long ciliary arteries pierce the sclera on the outer and inner sides of the optic nerve. They travel in the suprachoroidal space between the choroid and sclera, and just behind the attached margin of the iris each divides. The branches formed anastomose with each other and with the anterior ciliary arteries (which come from the muscular vessels and pierce the sclera) to form the circulus iridis major. From here radial branches run toward the pupil, and near its edge arterial and venous anastomoses take place to form the circulus minor.

The arteries of the iris come from the circulus major as numerous branches, often in company with those of the ciliary processes. They enter the iris at the site of attachment of a ciliary process, usually several to each process, and

in the intervals between the peripheral crypts. The run with occasional anastomosis radially from the ciliary margin to the pupillary margin. At the collarette a few anastomoses take place. (These, with the corresponding venous anastomoses, make an incomplete circle). The majority of vessels pass directly to the pupillary margin where, after breaking up into capillaries, they bend around into the commencement of the veins.

There is a dense capillary plexus around the sphincter and another less dense plexus in front of the dilator.

Neurology

The purpose of this extensive discussion of ocular neurology is to point out that the system is highly complex and is as yet by no means definitely understood even by the most recent investigators. It is known, however, that there are many possible nerve pathways that eventually terminate in the iris.

In his discussion of the nerve supply, Adler[3] has the following reports: "A twig of the oculomotor nerve passes to the ciliary ganglion, from which new fibers run to the eyeball and the suprachoroidal space, via the short ciliary nerves. A layer of ganglion cells, the fibers of which supply the sphincter muscle, has been found in the suprachoroidia."

In man, the ciliary ganglion has a long or sensory root. This goes to the nasociliary nerve, which is a branch of the ophthalmic division of the fifth cranial nerve. It conducts sensory impulses from the whole eyeball back into the brain, but it is thought that it may also contain some efferent sympathetic fibers.

While it has been shown that the pupillomotor fibers of the sphincter undoubtedly synapse in the ciliary ganglion, there seems to be a question as to whether or not the sympathetic fibers synapse in, or pass through the ganglion.

An interesting report by Adler has shown that the stimulation of certain

cortical areas in the brain will produce dilatation of the pupil, but, he says, this is not due to stimulation of a sympathetic center in the cortex, as thought by some, but rather is due to an inhibition of the third cranial nerve supply to the sphincter.

Centers for the origin of sympathetic impulses are probably located in the hypothalamus. Stimulation over a wide area of this region produces dilatation of the pupil, but it is difficult to tell whether the effects are due to stimulation of the dilator pupillae or to inhibition of the sphincter. From such hypothetical centers, fibers presumably travel down the cord as far as the eighth cervical and first thoracic ventral nerve roots. They leave the cord with these roots and proceed as white rami communicantes to the superior thoracic ganglia. They ascend the sympathetic chain as far up as the superior cervical ganglion. Here they terminate, forming a synapse with the cells of the ganglion. New fibers now proceed to the dilator by the following two routes: (1) Fibers run from the superior cervical ganglion through the Gasserian ganglion and join the nasal branch of the ophthalmic nerve. They follow the nasal branch to the point where two long ciliary nerves are given off, and thence to the pupil with these nerves. (2) From the superior cervical ganglion, fibers are also given off which run instead to the various plexuses located on the branch of the internal carotid artery. One of these plexuses is the cavernous plexus which sends a fine branch to the ciliary ganglion, and thence to the pupil via the short ciliary nerves. These sympathetic fibers, then, enter the eyeball with the parasympathetic fibers eventually reaching the sphincter muscle.

Some general uncertainty exists over the preganglionic outflow of sympathetic fibers to the pupil, however. In man, Foerster obtained homolateral dilatation of the pupil by stimulation of the roots of the eighth cervical nerve and by stimulating roots of the first and second thoracic nerves. Hyndman and Wolkin found that in five patients in whom the roots of the first to the fifth thoracic

nerves were sectioned bilaterally, three showed bilateral miosis and ptosis; whereas two showed only unilateral changes. Ray, Hinsey, and Geohegan exposed the roots by laminectomy in a series of ten patients and in one patient found that, on stimulation, the preganglionic outflow to the pupil was through the roots of the eighth cervical nerve to the roots of the third thoracic nerve. In two patients, stimulation of the first thoracic nerve alone caused pupillary dilatation. In four patients the roots of the first and second thoracic nerves contained pupillary fibers. In one patient the roots of the first, second, and third thoracic nerves, and in two patients the roots of the first through the fourth thoracic nerves contained pupillary fibers. This is evidence that pupillary fibers can be experimentally found at least as far down in the spinal column as the fourth thoracic vertebra.

In recent years, evidence has been accumulating that the two muscles of the iris are not simple antagonists. It has been assumed that the sphincter muscle is innervated by the parasympathetic third, alone, and the dilator by the sympathetic fibers, alone. It is now believed that the sphincter is supplied by both parasympathetic and sympathetic fibers. The dilator, on the other hand, is still thought to be supplied with only sympathetic fibers. It has been shown that certain drugs which are known to stimulate sympathetic nerves, for example, Adrenalin, have a distinct relaxing effect on the tone of the isolated sphincter muscle. If the iris is excised and the sphincter muscle cut and suspended in an oxygenated Ringer solution, it shows rhythmic movements. These spontaneous movements last for an hour or so and are the expression of slight changes in tone of the muscle. If a minute amount of Adrenalin is added to the Ringer solution, the sphincter immediately relaxes and the rhythmic movements cease. On the basis of such experiments, together with more indirect reasoning, it has been concluded that the sphincter muscle is not innervated by the third cranial nerve alone, but contains fibers from some sympathetic nerves which, when stimulated, inhibit the tone of

the muscle.

The numerous nerves of the iris structure itself, says Wolff, come from the ciliary plexus in the ciliary muscle, which is formed by the long and short ciliary nerves. Almost all are non-myelinated, but possess nuclei of Schwann, and form various networks. There is one in the anterior limiting layer which may be sensory in function. Another forms around the vessels. A third is seen in front of the dilator. From this latter plexus the emanating nerve fibrils are so numerous that each myo-epithelial fiber is thought to receive its own nerve fibril.* These fibrils terminate at the muscle fiber by end feet which are often endowed with little refractile spherules from which in turn very fine fibrillae pass. There is also a network around the sphincter. The nerve fibrils penetrate the sarcoplasm and end in a loop or ring.

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*Eugene Wolff, The Anatomy of the Eye and Orbit, p. 87. New York: McGraw-Hill, 1958.

CHAPTER VI

DIAGNOSIS FROM THE IRIS

Neurological Relationships

Wolff comments that the innervation of the sphincter seems to be in sectors, which explains the vermiform movements of the pupil, and similarly, coincides with the sectoring of iris charts.

According to Jensen, it is this previously described complex radial nerve system in the iris that is representative of all the spinal nerves - that there is an impulse to the iris via these fibrils as a reflex of stimulation anywhere in the body. These reflexes are held to be observable in vascular and muscular variations and changes within the iris zone of representation. The degree of intensity of the impulses creates variations in the iris fibers to various layer depths. The color observed is indicative of the layers of the iris tissue being affected. Iridology holds that the depth of the lesion in the iris corresponds to the stimulus intensity of the manifest area producing stimulation. From the iris reflexes, Jensen says that the stages of inflammation can be readily determined - whether the stage of inflammation by his standards be acute, sub-acute, chronic, or destructive, by variation in color shadings which range from very bright white to black, in the preceeding order.

Stage of Degeneration

Jensen also says that no other diagnostic approach can tell so accurately the progress from acute to chronic stages, or indicates the retracing process he refers to as the "healing crisis." (A process in which all stages of inflammation previously suffered must be repeated in reverse order before healing is complete). Many times the conditions revealed in the iris at the present will not be apparent by other signs or symptoms for years to come. Given time, however, they will occur

to prove the analysis to be correct. He further adds that in iridology it is often heard that someone has made a phenomenal diagnosis, but he does not consider any diagnosis to be phenomenal at all. His contention is that to be able to tell where abnormal conditions are by this means is not at all unusual. He maintains that those who condemn iridology have spent no more than a few minutes reading about the subject.

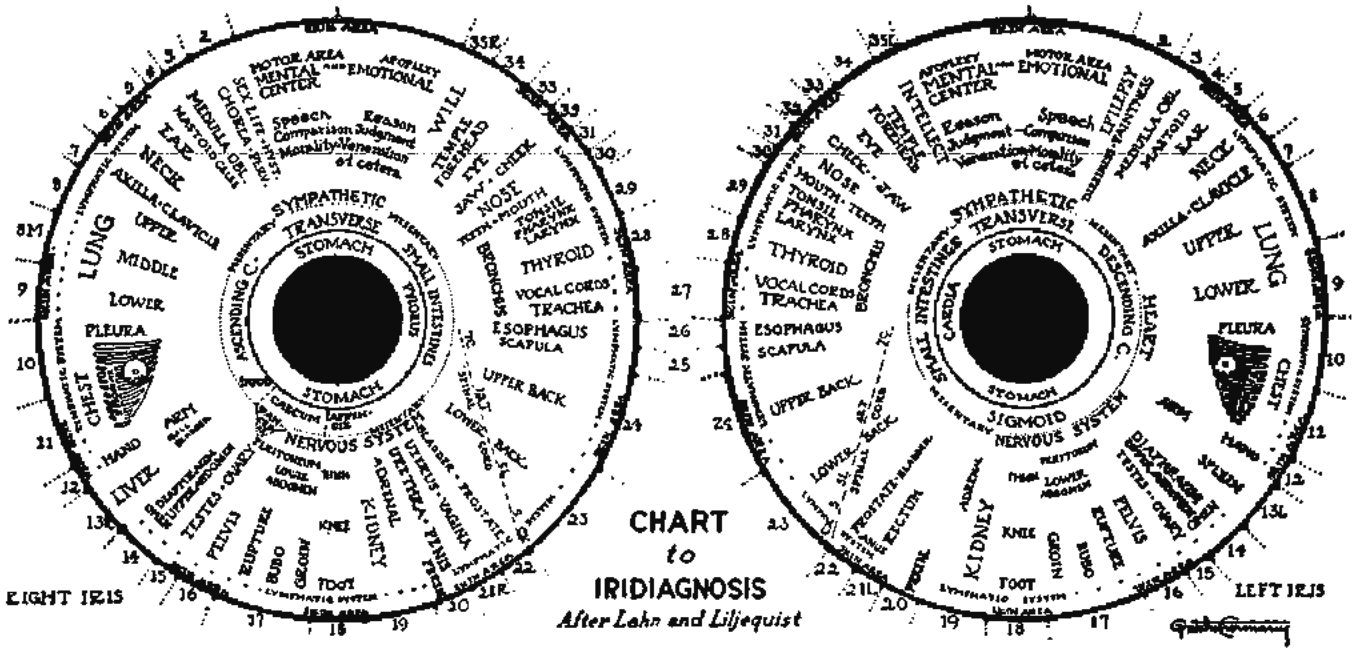
Iris Charts

The following iris charts (Fig. 1, 2, 3, & 4) were taken from Jensen's book, "The Science and Practice of Iridology," in order to illustrate the representative charting of iridology by some of its various advocates. It may be seen from observation of the charts presented that there is definite sector representation of the body organs. The iris of each eye is said to represent only the organs of the body found on that corresponding side; for instance, the heart is found represented only in the left iris, the pancreas in the right iris, and so forth. Jensen has attempted to locate the iris areas as exactly as possible, but says that slight variations may occur in different people.

It will be seen that the organs innervated by the autonomic nervous system are represented in the area surrounding the pupil, which includes the stomach and intestine areas. It is observed then, that the organs innervated by the autonomic nervous system are represented in the area within the collarette (autonomic nerve wreath, in terms of iridology), and embraces the area of the sphincter muscle.

With the sectors of the iris outlined, the matter moves to the identification of what indicates bodily disorder as manifest in the iris and what is normal iris variation, according to iridology. The complete coverage of this manifestation with all its ramifications, is highly complex and variable, all aspects of which cannot feasibly be undertaken within the scope of this paper. Briefly, analysis of the iris in iridology is undertaken under the next sub-titles.

Figure 1.



Revised by Henry Lindlahr, M.D.

FIG. 31.

Figure 2.

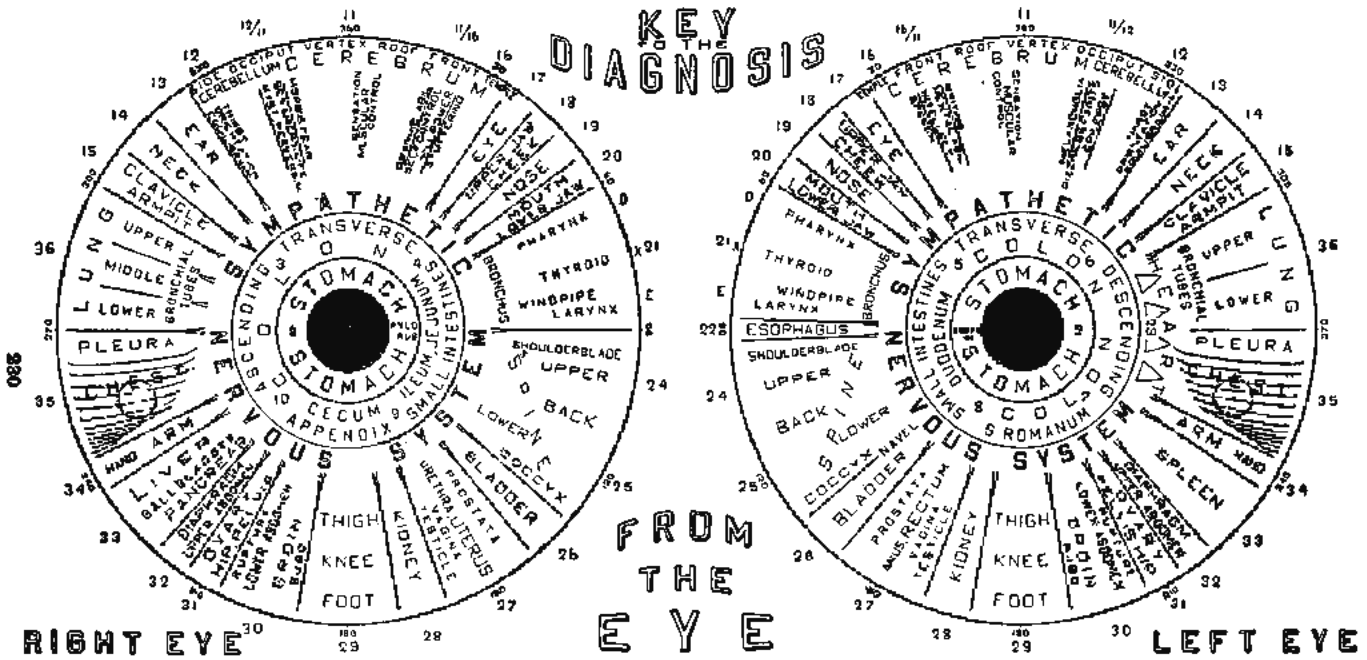


FIG. 32. This chart was used by Dr. Henry Edward Lane.

Figure 3.

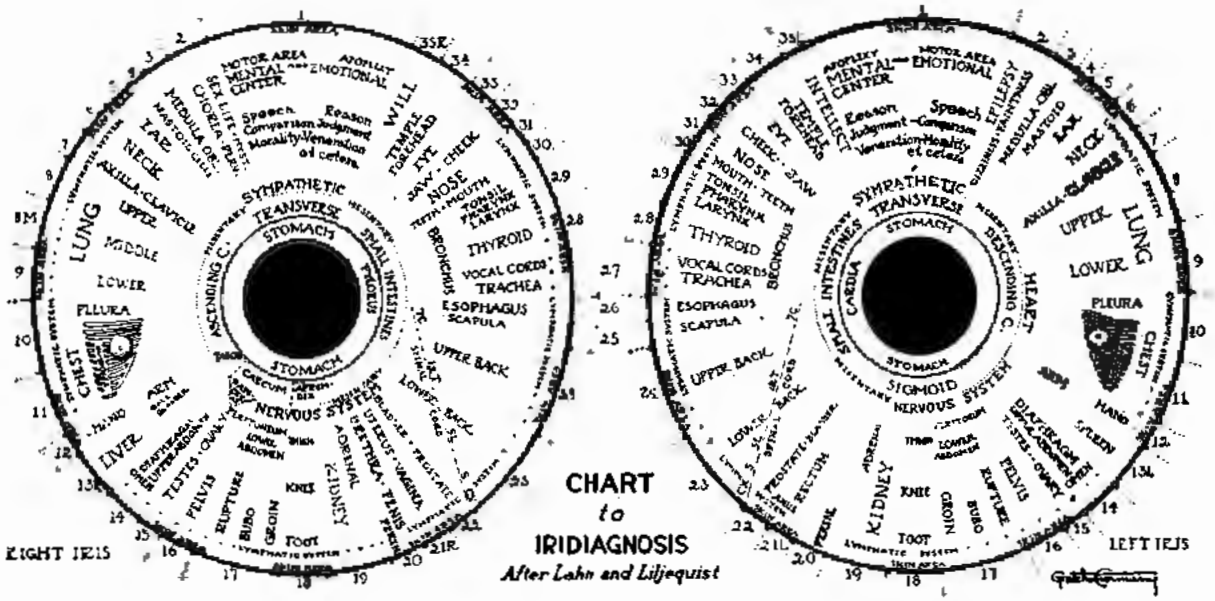
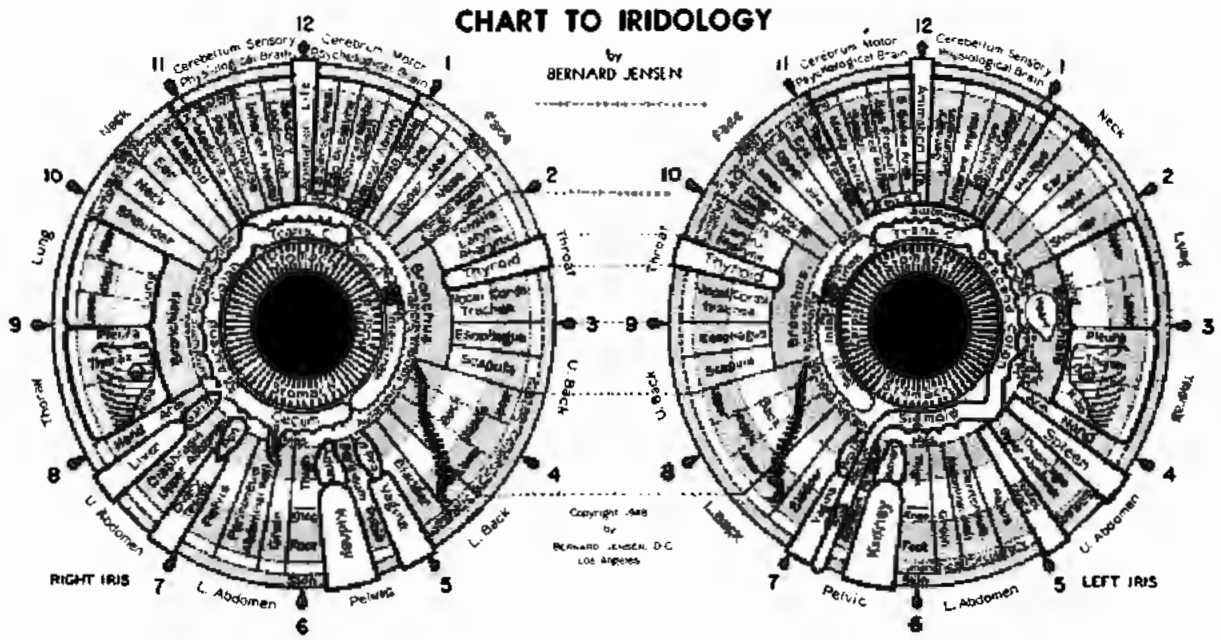


Figure 4.



Density

The overall texture of the fibers is the iris sign of body vitality. An iris which is loosely constructed, and shows fibers that are separated, indicates inherently weak tissue, low resistance to disease, and poor inherent recuperative powers. The very dense iris, however, represents a body with strong recuperative powers and high resistance to disease. The following density photographs (Fig. 5) represent variations in density ranging in an arbitrary classification of from one (good density) to six (lowest degree). Jensen says the average person has a density of approximately two and one-half to three.

When there is defective tissue density, the fibers in the iris are unevenly developed and arranged. Some seem to be sunken and some obliterated, leaving a large hole; others are crooked and intermingled with swollen fibers; others are warped. In some areas the fibers are massed into little bundles, the darker pigmented layers underneath becoming more visible and showing through as black holes in the iris, which represent very poor structure.

Lesions

The iris of the eye is so constructed that the layers, lying on top of one another, represent a variety of shadings all the way from an exteme white to a dark black. The white represents the acute stage of disease, the "acid" stage, while the black represents the extreme chronic stage. Every disease, according to Jensen, in its course of development is represented in these shadings as follows: white for acute, light gray for sub-acute, dark gray for chronic, and black for the destructive, or terminal stage of disease (Fig. 6, 7, 8, & 9).

If a sign of inflammation occurs in any one sector of the iris, it may appear as a small cut in a pie or a portion taken out of a wheel, and may be the resultant of a nerve impulse from some part of the body. Broken fibers indicate degeneration in the corresponding tissues. When a whitish color, indicating acute inflam-

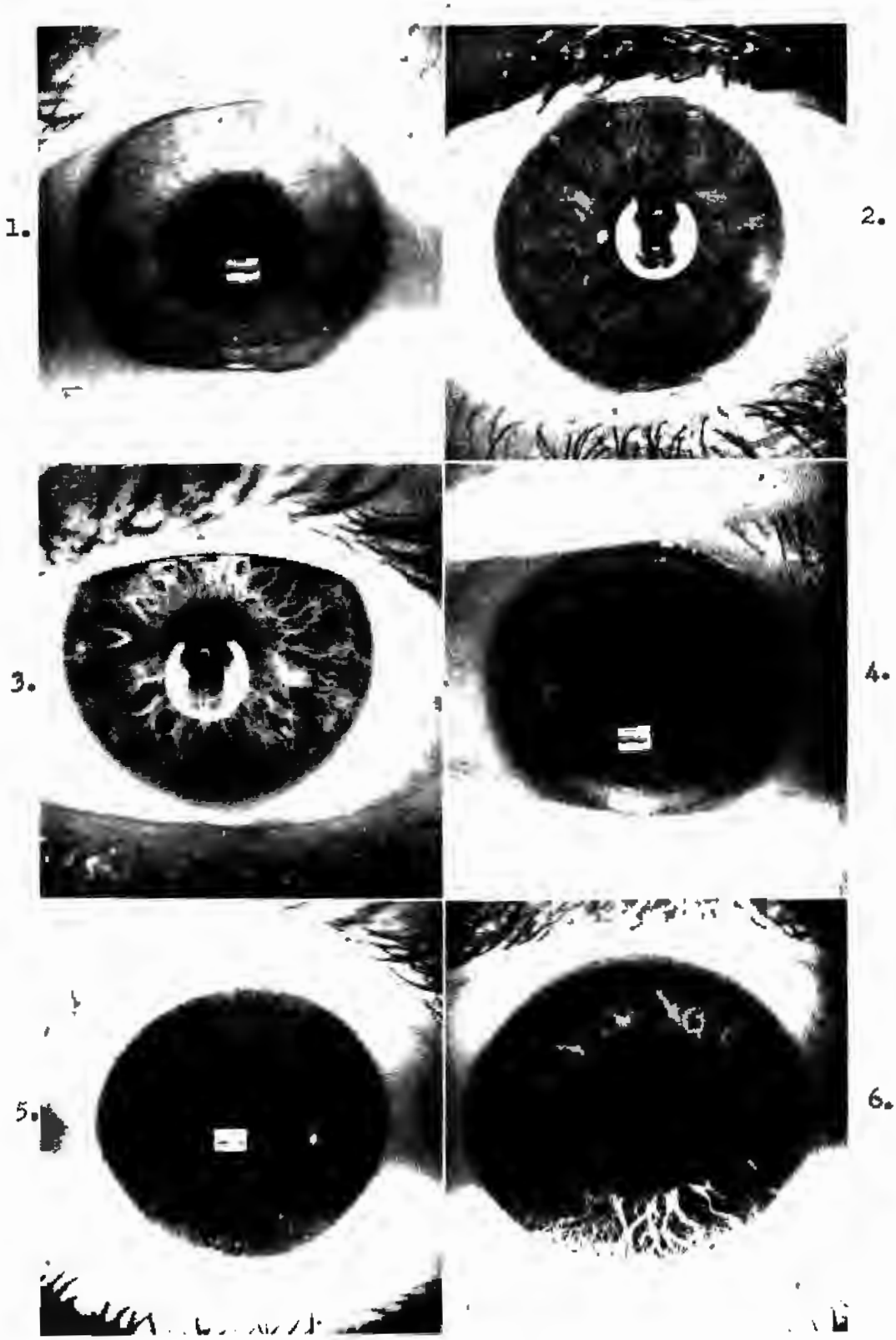


FIG. 29. The above iris photographs show densities ranging from 1 to 6.

Figure 6.

FIG. 63. The above drawing illustrates the appearance in the iris of an acute inflammation in the painful, inflamed, running stage.

Figure 7.

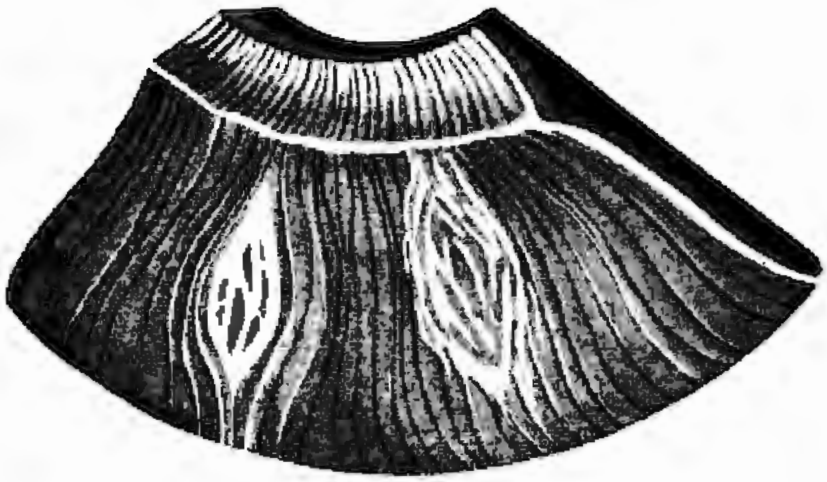


FIG. 64. An acute closed lesion that illustrates a heavy catarrhal settlement in whatever organ it may represent. Catarrh settled in any organ with this particular lesion in its iris area will not easily drain out, many times developing into cysts or other forms of accumulated waste.

Figure 8.

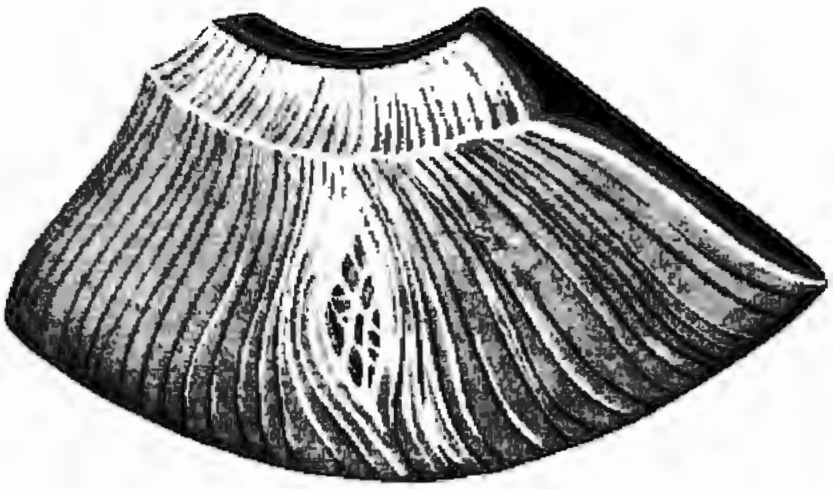


FIG. 65. When an organ area contains a sub-acute closed lesion such as the one illustrated above, it indicates that the drainage of catarrhal settlement has been incomplete, and that morbid waste is beginning to accumulate.

Figure 9.

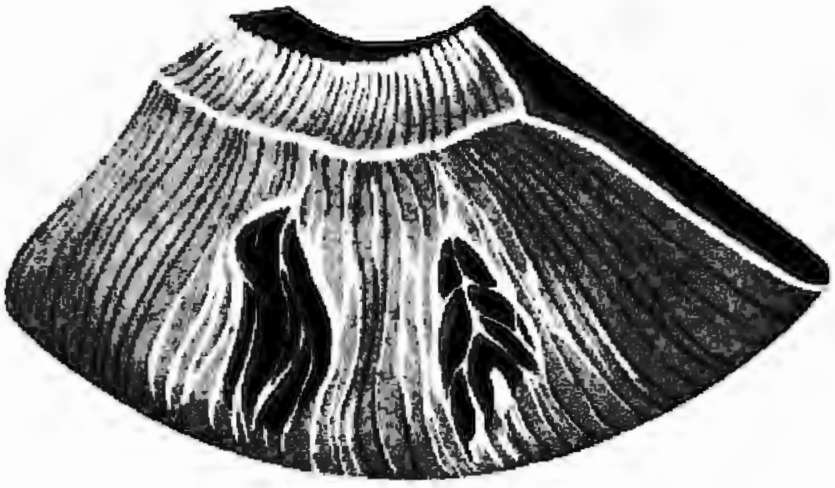


FIG. 66. This chronic open lesion indicates that the body has been depositing toxic waste in the organ represented by the area in which this is located for a long time, producing a chronic inflammation of the tissues.

mation is seen, there will most likely be accompanying symptoms of pain. The appearance of broken fibers will be found in injuries and broken bones, however operations done under anesthesia will not be recorded in the iris due to the interruption of nerve impulses to the iris during the time of surgery.

Jensen calls the collarette the autonomic nerve wreath, it being the perimeter of the area representing the stomach and intestines. He describes a white ring at the margin of the pupil similar to that described earlier by Salzmann. This ring indicates an acute acid stomach and will be accompanied by pain, belching, and heartburn. The collarette is the outline of the colon, and all conditions of the colon will be represented there. Chronic toxic settlements in the bowel will show up as black lesions in the autonomic nerve wreath. Jensen says that diverticuli or colon strictures thus found may be verified by x-ray following consumption of barium meal.

When the entire iris has a heavy white film covering it, rheumatic acids and arthritic tendencies are present in the body. Spurs will develop on the spine which will show up in the x-rays years after the iris has disclosed the condition. Not only, then, is it possible to diagnose inflammed areas, but the condition of the entire system as well.

A condition called radii solaris in which deep black radial streaks run from the pupil to the periphery was described and named by Lindlahr[4], but he ascribed no significance to it. Jensem says that this represents an extreme toxic condition of the body and describes it as follows: The radii solaris in the iris appear somewhat elongated. They take their shape from a separation and bending of the topmost fibrous layers, giving the appearance of deep troughs or funnels. They occur with a buildup of toxic material in the body and their presence indicates that the toxemia is interfering with the cleanliness and normal function of the body.

Ulcers of the stomach, as shown in the iris, may extend to the autonomic

nerve wreath with acute inflammatory signs radiating into the nearby somatic area. Iridology makes no mention of iris moles or freckles, but considers all spots to be pathologically significant and diagnostic. Tumors show as encapsulated toxic material in the form of black holes in the iris.

As far as is known, the time of death cannot be foretold from the iris.

Chemical Deposits

Of interest is the color diagnosis by which drugs and chemicals are said to be observable in the body. Jensen reports that Liljequist was the first to investigate and describe this aspect of iridology. There is following a chart which Jensen prepared to show how these drugs and chemicals can be seen in the iris (Fig. 10). Lindlahr claims that iridology proves beyond the shadow of a doubt that inorganic substances accumulate in certain body parts or organs for which they have a special affinity. There are various theories among iridologists on how these deposits occur in the iris, but the prevailing opinion seems to be that the substance is deposited from the iris capillaries by an action of the nerve stimulation in the area which corresponds to the affected organ.

From the foregoing description of "lesions" as they are held to be seen in the iris, and with the aid of the included diagrams and charts, the fundamentals of iridology should be understood by the reader. The remainder of this paper shall be devoted to a case history investigation of the subject and its controversial clinical validity.

Figure 10.

DRUG AND CHEMICAL CHART

Drug Name	How Gotten Into Body	Organs Settled in Most	Organs Eliminated Through	Appearance of Drug in Eye	Medicinal Uses	Symptoms
Arsenic	Salvarsan. Accidental Poisoning: Paris Green Spray. Fowler's Solution. Dyes, Cosmetics.	Circulatory area.	Lymph System. Kidneys. Bowels. Skin. Mucous Membranes.	Tiny White dots occurring singly or in groups in Lymph System.	Heart Stimulant. Gastric Disorders. Used with sulphur internally to suppress skin eruptions.	Abdominal Cramps. General Edema, Boils. Emaciation, Skin Eruptions. Weakness, Falling of Hair and Nails, Irritability.
Bismuth	Bismuth Subcarbonate. Bismuth Subnitrate.	Digestive Tract.	Mucous Membranes.	Dark Metallic Grey, irregular circle.	Coats Mucous Membranes and acts as a mechanical protection. For Syphilis.	Skin Discoloration Frequent Urination. Blue Line on Gums. Black Patches on Buccal and Rectal Mucosa. Angina.
Bromides	Bromoseltzer. Sedatives.	Brain area.	Skin and Eliminative Organs. Mucous Membranes.	Bluish White Crescent in Brain Area.	Antipyretic. Epilepsy. Neurasthenia.	Neuromuscular Weakness always in Legs. Orange or Yellow Skin Eruptions. Violent Headaches.
Coal Tar Products	Aspirin, Acetanalid, Saccharine, Patent Fever Remedies, Some vitamins.	Brain area and Nerve Tissue.	Skin. Kidney. Mucous Membranes.	Dark Steel Gray.	Pain killer. Fever breaker. Hypnotic	Easily Fatigued. Loss of Memory. Epilepsy.
Creosote	Cough Remedies. General Nerve Sedative. Acetanalid. Antipyrin. Phenacitin.	Stomach and Intestines.	Kidneys. Catarrhal discharge through Mucous Membranes.	Dirty Gray color, White specks in Gastro-Intestinal Tract.	Respiratory Diseases Tuberculosis. Coughs. Stimulant. Painkiller. Antipyretic. Purgative.	Mental and Nervous Disorders. Fear. Loss of Memory. Excessive Urination
Ergot	Eating rye containing ergot. Drug preparations.	Generative organs and Stomach.	Mucous Membranes.	Lighter Red than Iodine Spot in Uterine and Stomach areas.	Given to hasten delivery. To cause contraction.	Difficulty in Breathing. Numbness, Nausea. Vomiting, Diarrhea, Dizziness, Gangrene.
Glycerin	Chiefly through remedies in which used as a Carrier.	Skin. Kidneys. Lungs.	Mucous Membranes.	Large White clouds in Skin, Kidney and Lung areas.	In rectal suppositories. Solvent and sweetening agent in medicine.	
Iodine (Iodide)	Iodine Antiseptics. Iodine Douches. Patent Remedies for Goiter.	Settles everywhere. Often in Liver, Bowel, Kidney, Stomach, Lungs, Pancreas.	Mucous Membranes.	Red and Yellowish Red spots surrounded by White borders.	Antiseptic. Injections for Pleurisy. TB of Glands, Goitre. Inflammation of Glands, Joints.	Inflamed Gums, Colds, Frontal Headaches, Frothy Expectoration and Cough. Diarrhea, Skin Eruptions. Atrophy of Glands.
Iron	Water containing Iron. Blood Tonics. Iron Bromide.	Settles anywhere.	Bowel. Mucous Membranes.	Dark Rusty Brown spot. Much darker in Brown Iris.	Anemia. Antidote in Arsenic Poisoning. Iron Sulphate to Counteract Diarrhea. Iron Bromide for Amenorrhea.	Abdominal Pains, Black Stool, Stubborn Constipation, Relieved by Pressure. Tooth Decay.
Lead	Lead in drinking water from lead pipes. Workers handling lead, type, paint, tin foil. Coloring and canned goods.	Stomach and Intestinal area and Nervous Tissue.	Skin. Bowels Mucous Membranes.	Lead Gray or Lead Blue. Perfect circle around Pupil in Stomach and Intestinal area.	Skin Disease. Inflammation or discharge from ear or urethra. Douches.	Wrist drop. Dizziness. Neuro-muscular Pains in Arms, Shoulders and Neck Malnutrition. Blue Lead Line on Gums. Paralysis.

DRUG AND CHEMICAL CHART

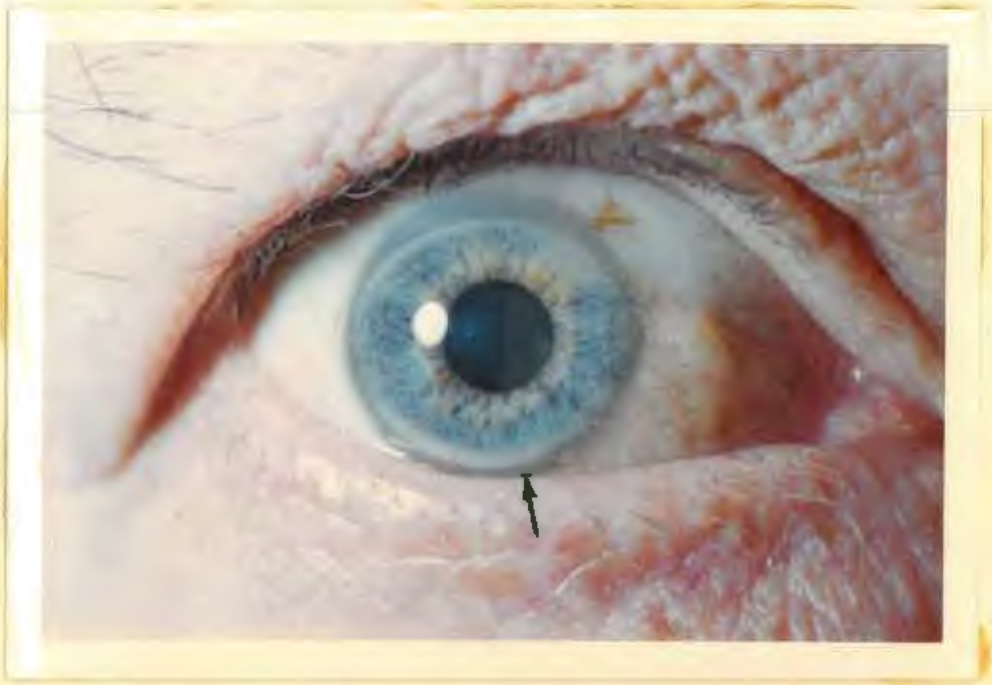
Drug Name	How Gotten Into Body	Organs Settled in Most	Organs Eliminated Through	Appearance of Drug in Eye	Medicinal Uses	Symptoms
Mercury	606, Hydrargyrum. Amalgam Tooth Fillings Mirror Platers. Mercury Miners.	Circulatory area of Brain. Bones	Difficult to eliminate. Skin Mucous Membranes Hemorrhoidal Discharge.	Whitish or Silver Gray. Metal Lustre. Bluish in Brown Eye.	Antiseptic Dressing. Ringworm Lotion. Disinfectant Douches. For Syphilis. Blue Ointment to suppress Parasites.	Tender swollen Gums. Loose Teeth, Deep Ulcers, Hutchinson's Teeth, Locomotor Ataxia, Mental Degeneration, Metallic Taste in Mouth.
Opium (cocaine)	Laudanum. Paregoric Morphine.	Stomach Intestines. Sympathetic Nervous System.	Mucous Membranes.	White or Whitish Gray lines radiating straight out and around Pupil.	Sedative. Hypnotic. Sweat producer.	Stimulation mixed with Depression. Mental and Physical Fatigue. Chronic Constipation.
Phosphorus	Inhalation by workers in match factories Medicines. Vermin Poisons.	Diaphragm and heart. Angle of the jaw	Skin Bowel. Mucous Membranes.	White flakes anywhere in Iris, especially in Muscle and Bone Structure areas.	General Nerve Tonic. Softening of Bone. Sexual Impotence. Pulmonary Disorders. Some Skin Diseases.	Chronic Diarrhea, Constipation, Later Chronic Headaches, Ulceration of Gums, Pyorrhea, Skin Itch, Necrosis of Jaw.
Quinine (alkaloid of) (salts of)	Bromo-Quinine Malarial Preventative. Appetizer Tonics Hair Tonics containing it	Stomach and Intestinal Tract. Chronic Use Spreads Throughout Body.	Mouth, Skin, Kidneys, Bowel, Hemorrhoidal Discharge. Mucous Discharges.	Yellow or Yellowish Green in G.I. Tract and all over the Iris	Fever Breaker. Tonic during Convalescence. Rectal Injection against Amoebic Dysentery. Painful nervous conditions.	Ringing or Roaring in Ears, Deafness, Disturbed Vision, Quinine Taste Mouth, Mental Depression, Itchy Skin Eruptions, Perspiration.
Salicylic Acid	Food and drink preservatives, Aspirin, Cold remedies, Oil of wintergreen.	Brain area, Stomach and Intestines	Bowels. Skin Mucous Membranes.	Whitish Grey to Dirty Grey cloud. Shown mostly in upper part of Iris.	Fever Breaker, Night Sweats. Inflammatory Rheumatism. Chronic Cystitis.	Headaches, Loss of Hair, Dullness of Hearing, Ringing in Ears, Dimness of Vision.
Sodium	Table salt, Bicarbonate of Soda (Baking Soda), Saline food. Sodium Salicylate. Sodium Benzoate.	Circulatory Area	Skin. Mucous Membranes.	Dull White arc or circle in Circulatory area.	Saline Cathartics. Stomach Acidity. For Rheumatism.	Eczema, Boils, Pimples, Dyspnea, Arteriosclerosis, Angina Pectoris, Constriction of Pupil, Poor Memory.
Strychnine	Tonic Stimulant. Nux Vomica.	Stomach	Mucous Membranes.	White to Whitish Yellow wheel of perfect proportions around Pupil.	Stimulant. Appetizer. Heart and Nerve Tonic.	Constipation, Fermentation, Emaciation, Indigestion, Unnatural Hunger, Weakness of Heart. Paralysis, Anemia.
Sulphur (sulfa)	Sulphured Foods. Sulphur Water and Baths. Inhalation of Sulphur Gases. Medication.	Bowel and Stomach.	Skin. Bowel. Mucous Membranes.	Dark Brown Cloudy Discoloration	Packs, Salves, Bowel Cleanser. Preservative. Scalp Ointments, Water, Bacterial Infections.	Boils, Pimples, Eczema, Rash, Eruptions, Nausea, Vomiting, Fever.
Turpentine	Accidentally absorbed through inhalation by turpentine distillers, painters, artists.	Genitourinary organs.	Genitourinary organs. Kidneys. Mucous Membranes.	White in area of Genitourinary organs. Dense Gray clouds.	Antiseptic and diuresis of genitourinary organs. For colds	Suppression and Retention of Urine.
Vaccines	Injections or through skin.		Skin Mucous Membranes.	Black to Dirty Murky Brown spots with White borders. Deposited superficially on Iris surface.	For immunization.	Skin Eruptions. Fevers.

CHAPTER VII

SELECTED CASE HISTORIES

Selected Group
Male, age 54
PHYSICIAN'S DIAGNOSIS: Pyelonephritis

Subject number 1



RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Selected Group
Male, age 50
PHYSICIAN'S DIAGNOSIS: Pyelonephritis, duration three years

Subject number 2

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Selected Group
Male, age 51
PHYSICIAN'S DIAGNOSIS: Recurring pyelonephritis

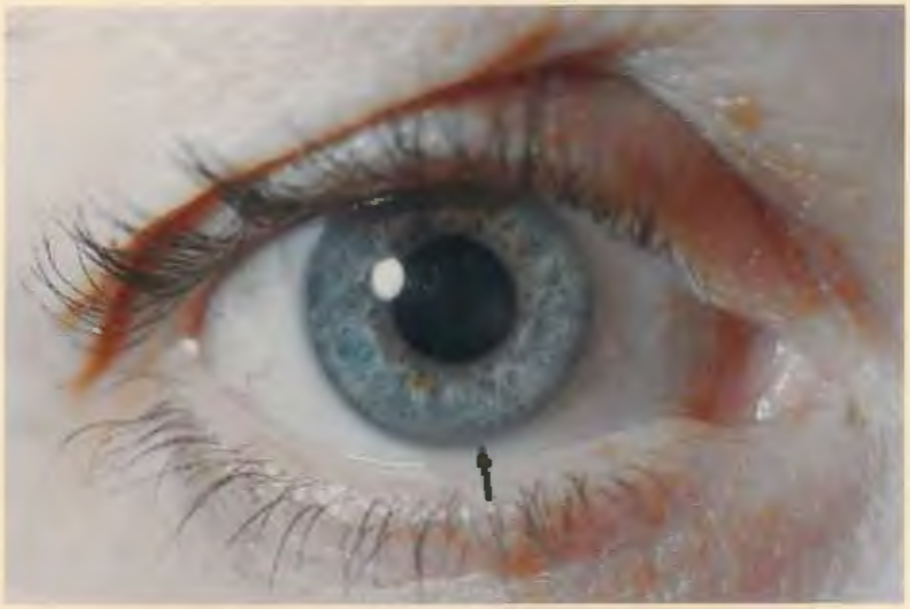
Subject number 3

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Selected Group Subject number 4
Female, age 45
PHYSICIAN'S DIAGNOSIS: Chronic cystitis and nephritis, predominantly right kidney, duration eight years



RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that one analyst diagnosed from the right iris

Selected Group
Female, age 27
PHYSICIAN'S DIAGNOSIS: Recurrent nephritis

Subject number 5

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that both analysts diagnosed from the left iris and one from the right iris

Selected Group
Female, age 27
PHYSICIAN'S DIAGNOSIS: Recurrent nephritis

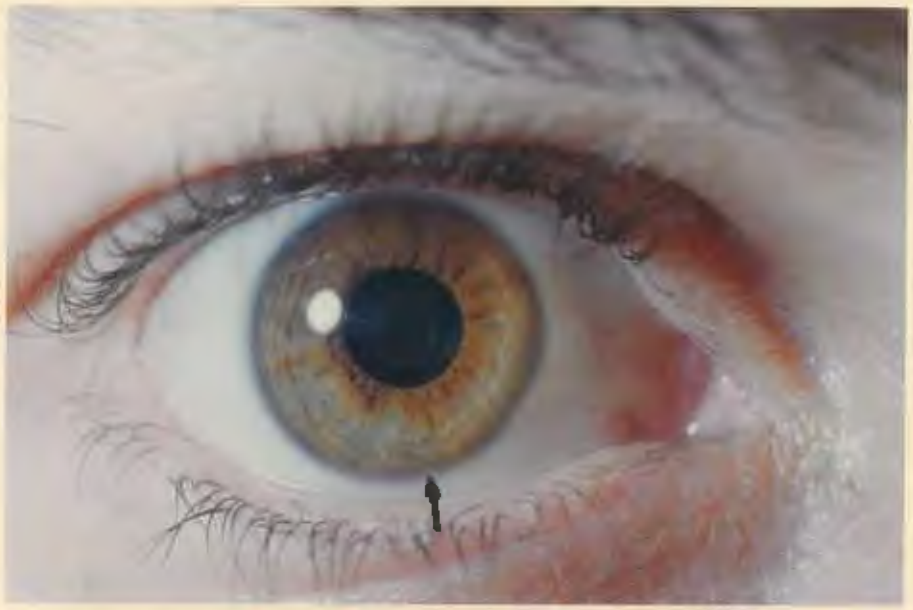
Subject number 5

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that both analysts diagnosed from the left iris and one from the right iris

Selected Group Subject number 6
Male, age 26
PHYSICIAN'S DIAGNOSIS: Ruptured left kidney ten years ago, removed by surgery eighteen months ago

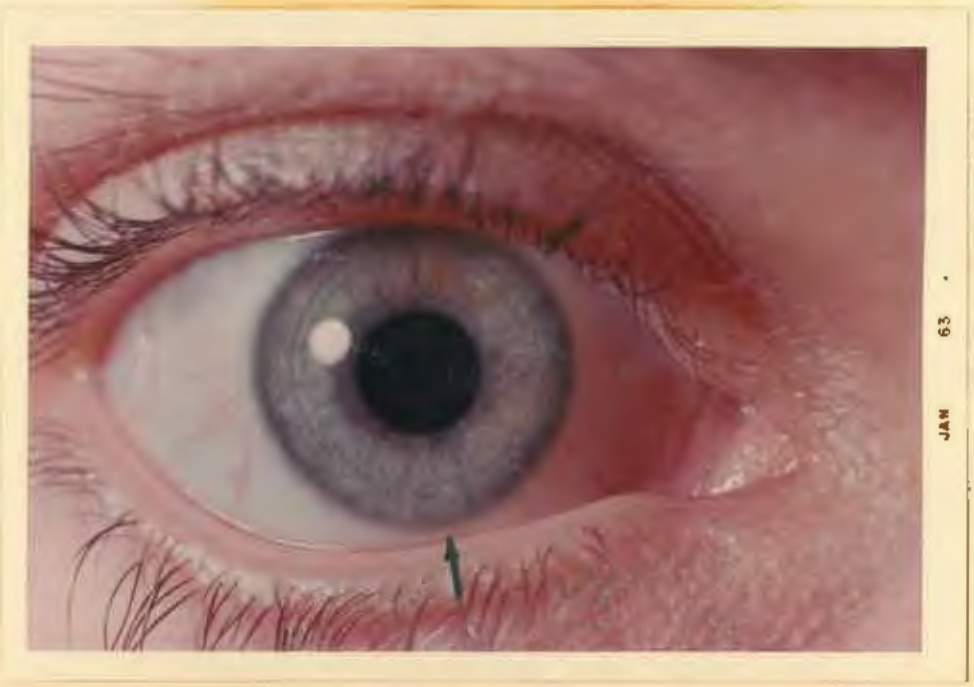


RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that both analysts diagnosed from the right iris, but - must be considered negative for the left iris, in which the involved kidney is held to be represented. This trauma case, then, is considered negative.

Selected Group Subject number 7
Female, age 24
PHYSICIAN'S DIAGNOSIS: Recurrent nephritis, duration of recurrency three years

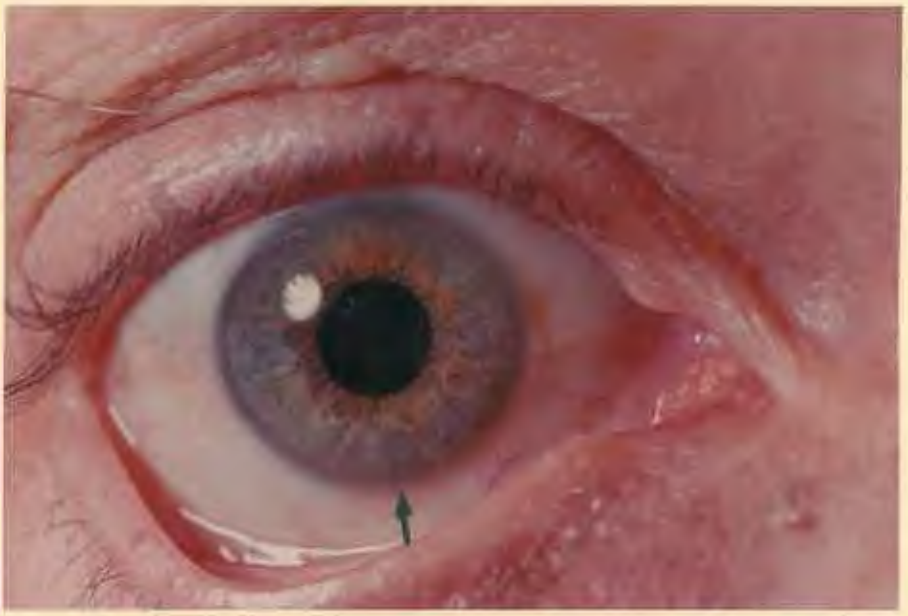


RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Selected Group Subject number 8
Male, age 44
PHYSICIAN'S DIAGNOSIS: Semi-paraplegic with ascending chronic urinary infection, duration of kidney infection three years



RIGHT EYE

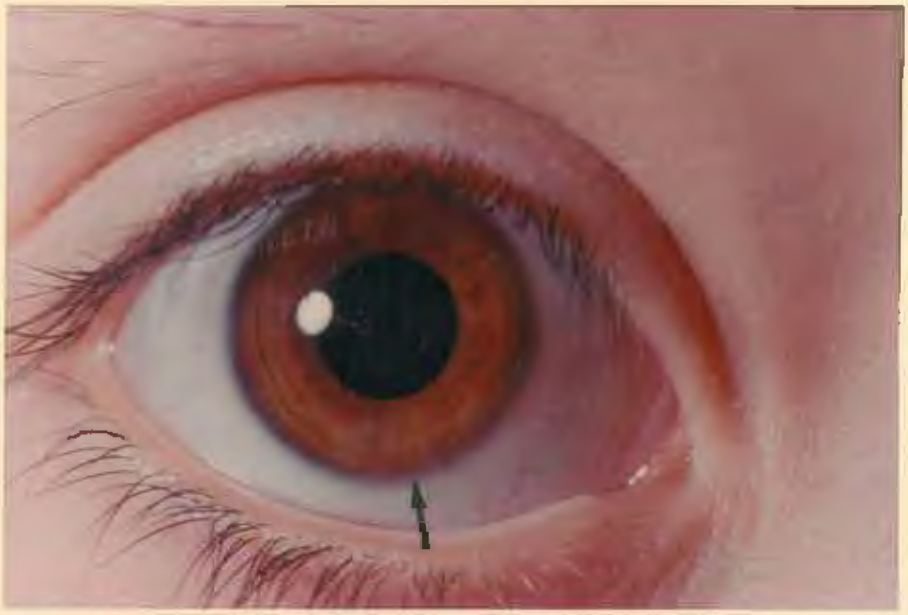
LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Selected Group
Female, age 9

Subject number 9

PHYSICIAN'S DIAGNOSIS: Acute nephritis associated with rheumatic fever



RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Selected Group Subject number 10
Female, age 53
PHYSICIAN'S DIAGNOSIS: Chronic glomerulonephritis, duration twelve years

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that one analyst diagnosed from the right iris

CHAPTER VIII

CONTROL GROUP

Control Group
Male, age 24
No history of kidney disease

Subject number 1

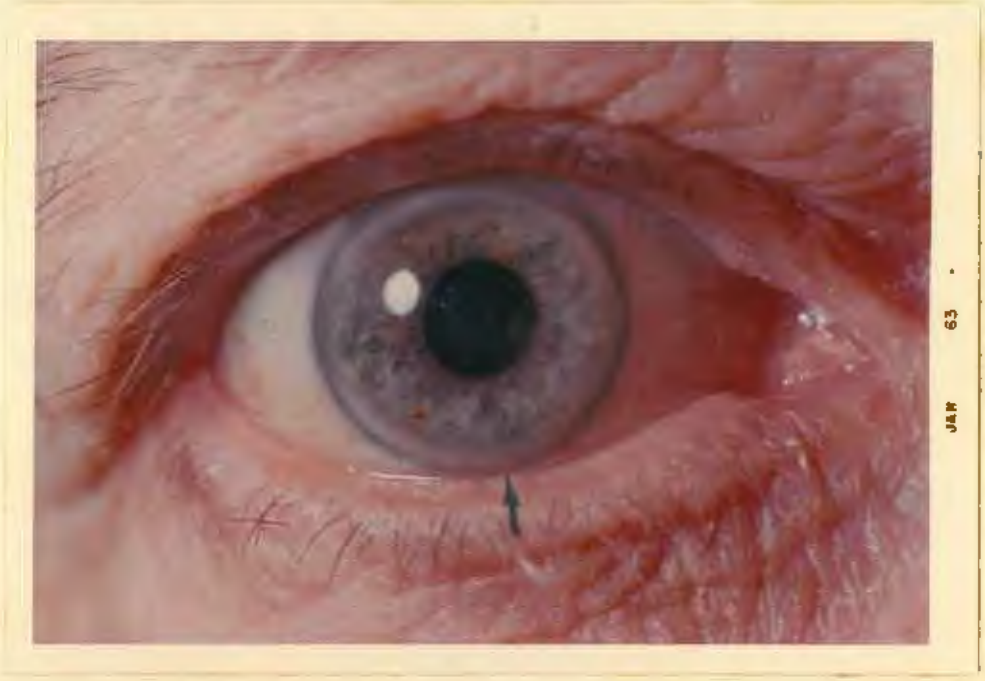
RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (HEATHING AND BUMGARNER): Positive, on the basis that both analysts diagnosed from the right iris and one from the left

Control Group
Male, age 58
No history of kidney disease

Subject number 2



RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (KLEYTHING AND BUMGARNER): Negative

Control Group
Male, age 40
No history of kidney disease

Subject number 3

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Control Group
Female, age 47
No history of kidney disease

Subject number 4

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Control Group
Female, age 49
No history of kidney disease

Subject number 5

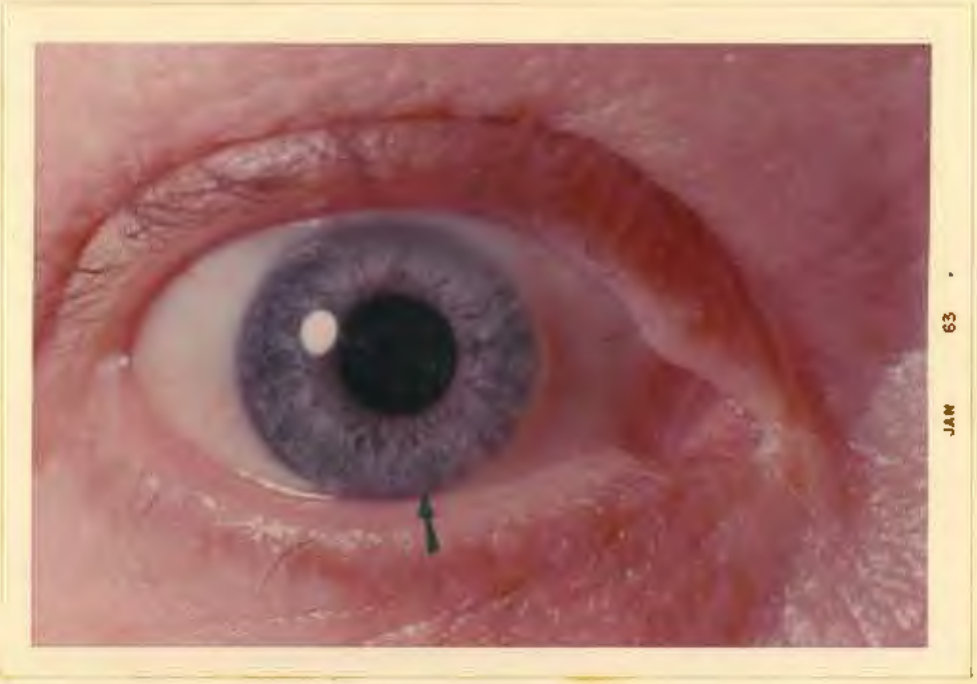
RIGHT EYE

LEFT EYE

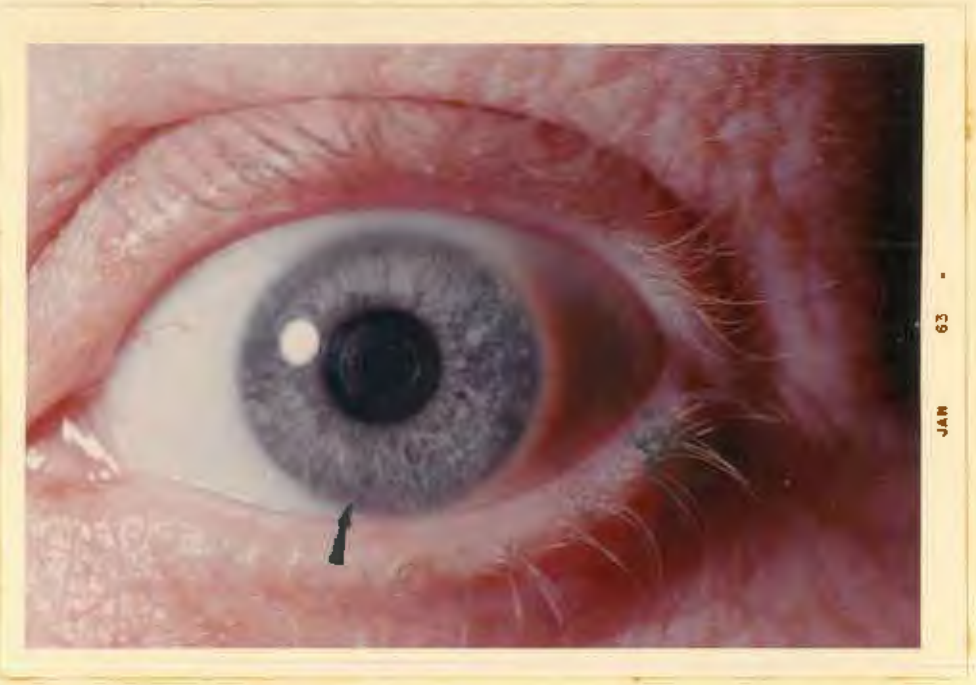
IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Control Group
Female, age 47
No history of kidney disease

Subject number 6



RIGHT EYE



LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Control Group
Female, age 13
No history of kidney disease

Subject number 7

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that both analysts diagnosed from the right iris and one from the left

Control Group
Female, age 27
No history of kidney disease

Subject number 8

RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Positive, on the basis that one analyst diagnosed from the left iris

Control Group
Female, age 21
No history of kidney disease

Subject number 9

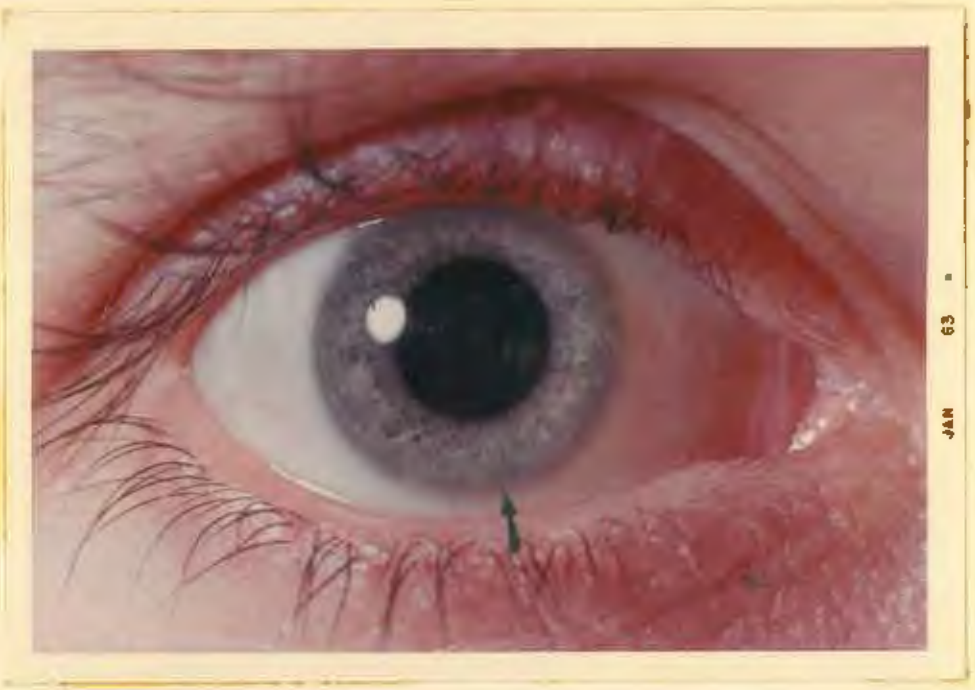
RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

Control Group
Male, age 27
No history of kidney disease

Subject number 10



RIGHT EYE

LEFT EYE

IRIS DIAGNOSIS, (BLEYTHING AND BUMGARNER): Negative

CHAPTER IX

CONCLUSIONS

SUMMARY OF DATA

Subject number	Selected Group	Subject number	Control Group
1.	Negative	1.	Positive
2.	Negative	2.	Negative
3.	Negative	3.	Negative
4.	Positive	4.	Negative
5.	Positive	5.	Negative
6.	Negative	6.	Negative
7.	Negative	7.	Positive
8.	Negative	8.	Positive
9.	Negative	9.	Negative
10.	Positive	10.	Negative
Total	3 Positive	Total	3 Positive
	7 Negative		7 Negative

From the foregoing table it can be seen that the two groups have identical distribution of diagnoses. The evaluation of these is as follows:

Selected Group

Three subjects received positive diagnosis from the iris in the selected group of ten patients.

Several methods are usually employed before arriving at any final diagnosis, as the validity of every method, as applied to every case, is certainly questionable. If a given test were found to be valid in fifty per cent of the case in which it were employed, it might be assumed to have a diagnostic value. By arbitrarily assuming, then, that diagnosis from the iris is valid in fifty per cent of the cases, the probability of finding three correct diagnoses out of ten tries, as actually occurred in the selected group, is computed below:

p = the assumed per cent of validity of iris diagnosis

q = the remaining per cent of cases not diagnosed by the iris signs

Probability of the results obtained from the selected group occurring by chance is determined by binomial expansion, which is in this case found by utilizing the formula $120\ p^3q^7$. The probability is $120\ (.5)^3(.5)^7$, or $120\ (.5)^{10}$ which equals .117. In other words, the probability of finding only three positive patients out of ten, not by chance, from a diagnosis that is fifty per cent valid would occur 11.7 per cent of the time.

If iris diagnosis were held to be eight-five per cent valid, then the probability of finding only three cases out of ten would occur not by chance with a probability of $120\ (.85)^3(.15)^7$, which equals .0126, or 1.26 per cent of the time.

Control Group

Three subjects received positive diagnosis from the iris in the control group of ten subjects representing a random population. If the signs in the iris that were found and diagnosed in the kidney areas of the control group are nothing

more than unusual, but non-diagnostic variations in iris structure, then on the basis of this random sample, any other population might be expected to show three out of ten subjects with these iris variations.

A sophisticated analysis of the standard deviation of the means of the two groups could be made by using the following formula:

$$\text{Standard Deviation} = \sqrt{pq\,(1/N_1 + 1/N_2)}$$

The z-score could then be determined.

Since the experimental group shows the same proportion as the control group, the conclusion, by inspection ~~statistically speaking~~, is that both groups are drawn from the same universe; or, clinically speaking, that the iris technique involving sectored representation is not valid for diagnostic purposes in kidney disease.

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