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എഡിറ്റോറിയൽ

ഇന്ത്യയെ ഉന്നതങ്ങളിൽ എത്തിച്ച നമ്മുടെ ബഹുമാനപ്പെട്ട മുൻ പ്രസിഡന്റ് ഡോ എ.പി.ജെ. അബ്ദുൾ കലാമിന് ആദരാഞ്ജലികൾ അർപ്പിക്കുന്നതോടൊപ്പം ഇൻസൈറ്റിന്റെ ഒരു പതിപ്പ് കൂടി നിങ്ങൾക്ക് മുന്നിൽ സമർപ്പിക്കുന്നു.

സർവ്വീസ് സംഘടനകളിൽ അതികായനായ കേരള ഗവ. ഒപ്റ്റോമെട്രിസ്റ്റസ് അസ്സോസിയേഷന്റെ അഭിമാനമായ ഇൻസൈറ്റിന്റെ ഈ വർഷത്തെ എഡിറ്റർ ആകാൻ കഴിഞ്ഞതിലുള്ള കടപ്പാട് ഏവരെയും അറിയിക്കട്ടെ. ഇൻസൈറ്റിലേക്ക് കിട്ടിയ ലേഖനങ്ങൾ, സ്ഥലംമാറ്റ ഉത്തരവുകൾ, ശമ്പള പരിഷ്കരണ ഉത്തരവിന്റെ പ്രസക്ത ഭാഗങ്ങൾ, മറ്റ് സർക്കാർ ഉത്തരവുകൾ തുടങ്ങിയവ ഈ ലക്കത്തിൽ പരമാവധി ഉൾപ്പെടുത്തുവാൻ ശ്രമിച്ചിട്ടുണ്ട്.

കഴിഞ്ഞ കാലങ്ങളിൽ ഇൻസൈറ്റിന്റെ പ്രാധാന്യം മനസ്സിലാക്കി നിസ്സീമമായ സഹകരണവും പിൻതുണയും നൽകിയ നിങ്ങളോരോരുത്തരേയും നന്ദിയോടെ സ്മരിക്കുന്നു. തുടർന്നും വിലയേറിയ ലേഖനങ്ങളും നിർദ്ദേശങ്ങളും പ്രതീക്ഷിച്ചുകൊണ്ട്

ബി.ആർ. സുധീഷ്
എഡിറ്റർ

PRESIDENT'S VOICE

പ്രിയ സുഹൃത്തേ,

കേരള ഗവൺമെന്റ് ഒപ്റ്റോമെട്രിസ്റ്റ്സ് അസ്സോസിയേഷന്റെ ഓരോ അംഗങ്ങൾക്കും അഭിനന്ദനമേകി കൊണ്ട് നിങ്ങളോരോരുത്തരെയും 'ഐറിസ് 2015' ലേയ്ക്ക് സ്വാഗതം ചെയ്തുകൊള്ളുന്നു. ഈ ഇൻസൈറ്റ് നിങ്ങളുടെ കൈകളിലെത്തുമ്പോൾ എനിക്ക് വളരെ അഭിമാനം തോന്നുന്നു. കാരണം ഒരു വർഷം നമ്മുടെ സംഘടനയുടെ ചില സാങ്കേതിക പ്രശ്നങ്ങൾ കാരണം സംഘടയുടെ പ്രവർത്തനത്തിൽ തടസ്സം നേരിടേണ്ടി വന്നതിന്റെ കാരണങ്ങളെല്ലാം നാം ഓരോരുത്തർക്കും അറിവുള്ളതാണല്ലോ?

എന്നാൽ അതിൽ നിന്നെല്ലാം ഉയർത്തെഴുന്നേറ്റ് സംഘടന അതിന്റെ പൂർണ്ണ തേജസ്സോടു കൂടി പ്രവർത്തിക്കുവാൻ ഓരോ അംഗങ്ങളും കാട്ടിയ ഊർജ്ജസ്വലതയ്ക്ക് ഞാൻ പ്രത്യേകം അഭിനന്ദനം അറിയിക്കുന്നു.

എങ്കിലും ചുരുങ്ങിയ കാലംകൊണ്ട് വളരെ പ്രധാനപ്പെട്ട ചില കാര്യങ്ങളിൽ ഇടപെടുവാൻ സാധിച്ചു. കേരള ഗവൺമെന്റ് ഒപ്റ്റോമെട്രി കൗൺസിൽ രൂപീകരിക്കുക, സ്റ്റേറ്റ് കോ-ഓർഡിനേറ്ററുടെ നാമകരണം സ്ഥിരപ്പെടുത്തുക, മെഡിക്കൽ എഡ്യൂക്കേഷൻ ജീവനകാരുടെ നാമകരണം മാറ്റുക തുടങ്ങി ഒട്ടനവധി കാര്യങ്ങൾക്ക് ഗവൺമെന്റിൽ ശക്തമായ സമ്മർദ്ദം ചെലുത്തിവരികയാണ്.

പുതിയ തസ്തികകൾ സൃഷ്ടിക്കുക, പ്രൊമോഷൻ റേഷ്യോ 1:1:1 ആക്കി പുതുക്കി നിശ്ചയിക്കുക, ശമ്പള കമ്മീഷൻ അപാതകൾ പരിഹരിക്കുക തുടങ്ങിയ മുൻഗണന അർഹിക്കുന്ന കാര്യങ്ങൾക്കു വേണ്ടി സംഘടന ശക്തമായി ഇടപ്പെടുന്നുണ്ട്.

കേരള ഗവൺമെന്റ് ഒപ്റ്റോമെട്രിസ്റ്റ്സ് അസ്സോസിയേഷൻ മാത്രമാണ് രജിസ്ട്രേഷനുള്ള സംഘടനയെന്നും നമുക്ക് മാത്രമേ അംഗങ്ങളുടെ ന്യായമായ ആവശ്യങ്ങൾക്കുവേണ്ടി പോരാടി അവ നേടിയെടുക്കുവാൻ സാധിക്കുകയുള്ളൂ വെന്നും നമ്മൾ തിരിച്ചറിയണമെന്ന് ഈ സംഘടനയുടെ പ്രസിഡന്റ് എന്ന നിലയിൽ അഭ്യർത്ഥിക്കുന്നു.

നമ്മുടെ സംഘടനയ്ക്ക് അഭിമാനമായ നിമിഷമാണ് 23-ാം സംസ്ഥാന സമ്മേളനത്തിൽ മാറിനിന്നവർ സംഘടനയിൽ തിരിച്ച് വന്ന് സംഘടയുടെ കരുത്ത് വർദ്ധിപ്പിച്ചത്. അവരെ ഞാൻ പ്രത്യേകം അഭിനന്ദിക്കുന്നു.

അന്ധതാനിയന്ത്രണം എന്ന മഹത്തായ ലക്ഷ്യമാണ് നാം ഓരോരുത്തരിലും നിക്ഷിപ്തമായിരിക്കുന്നത്. നമ്മുടെ ന്യായമായ ആവശ്യങ്ങൾക്കു വേണ്ടി സംഘടന എപ്പോഴും നിങ്ങളോടൊപ്പം ഉണ്ടാകുമെന്ന് അറിയിച്ചുകൊണ്ട് പുതിയ ആവശ്യങ്ങൾ പങ്കുവയ്ക്കുവാനും അവകാശങ്ങൾ നേടിയെടുക്കുന്നതിനു വേണ്ടി നമ്മൾ ഒരുമിച്ച് മുന്നേറുവാനും അഭ്യർത്ഥിച്ചുകൊണ്ട് സംഘടനയ്ക്കു വേണ്ടി പ്രവർത്തിക്കുന്ന എല്ലാവരെയും അഭിനന്ദിച്ചുകൊണ്ട് ഇൻസൈറ്റിന്റെ ഈ ലക്കം നിങ്ങൾക്കായി ഹൃദയപൂർവ്വം സമർപ്പിക്കുന്നു.

പി.എസ്. സുഗുണൻ
പ്രസിഡന്റ്

FROM SECRETARY'S DESK

Dear Colleagues,

I would like to thank you all for making the 23rd state conference of Kerala Government Optometrists Association at Ernakulum a grand success. I am happy to announce that Kerala Government Optometrists Association is going to conduct its annual CME programme (IRIS) at Calicut on 11th October 2015. I request all members to participate in IRIS 2015. Also, the Association has started an online educational portal in our website with the logo GOAK CONTINUING EDUCATION PORTAL. We started it with the help of world council of optometry in collaboration with world continuing education alliance. All the optometrists may take membership in the portal and make use of it.

Kerala government optometrists association has participated in the9th biennial conference of National Ophthalmic Association at Gandhinagar, Gujarat and expressed our views and demands there. Representatives from 20 states participated in the conference. Through Gazette notification UGC approved B optom and M optom, as Degree and Post graduate degree of Optometry science. In Kerala two Govt. Medical Colleges and many Govt. recognised Private institutions started Bsc Optometry courses affiliated to KUHS. In the present situation those who studying diploma courses have less oppurtunities. GCC countries amended recruitment rules as Bachelor of Optometry with state council registration being the minimum qualification. So it is utmost important to form a registration council similar to Pharmacy council or Dental council. A self regulatory Optometry council of India (OCI) is formed in North India to press government of India for its enactment by Parliament. We are determined to work towards the formation of Kerala State Optometry Council. Since we decided to become a part of National Ophthalmic Association, we would be able to know the development in the field of optometry in other states also.

We have submitted our grievances before the 10th Pay Revision Sub committee. Representation is also given for the change of designation in Directorate of Medical Education as Optometrists . Gradation list of Optometrists joined in service after the year 2000 has not published so far. As the representation given in this matter earlier has not materialised, we have submitted a fresh representation to Director of Health service. It is under process now.

It is the tremendous support from all of you that keep us going ahead.

Thanking You

BINOY.R
GENERAL SECRETARY

Thiruvananthapuram
25/09/2015

VISION ASSESSMENT IN LOW VISION PATIENTS

Introduction

A careful and detailed clinical examination is the basis of a successful low vision practice. A low vision patient, unlike others will not be able to meet normal visual needs even after any kind of medications / treatments done for overcoming the disease. But we should not forget that, these group of patients are capable of doing many visual tasks using proper low visual aids. A thorough visual assessment will provide serious clues for the selection of the type of devices to be prescribed.

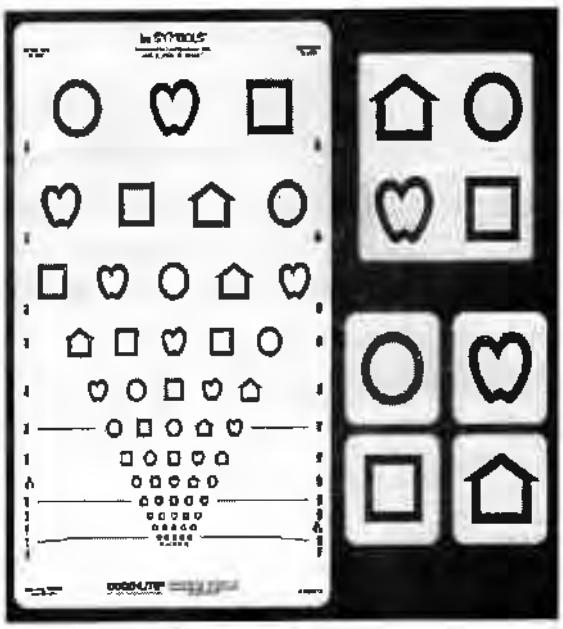
Visual Acuity assessment in LV practice is different from that being done in regular ophthalmology/optometry practice. While a Snellen VA chart is used normally, here we replace it with a logMAR visual acuity chart. These charts have many merits over the traditional Snellen test types, which will finally help us to calculate the amount of magnification needed by the patient to perform his task.

Characteristics of an Ideal LV chart:

- ⇨ Should have high contrast
- ⇨ Should have geometric progression of size difference between lines and proportional spacing of letters/ optotypes.
- ⇨ Should have a number of characters in 30m to 240m size range, for better quantification of visual acuity.
- ⇨ ie, more steps between 6/60 – 6/6
- ⇨ Should maintain equal number of letters in each row
- ⇨ Should be able to test VA at non-standard testing distance of 3m or more closer

The logMAR charts fulfill most of the above requirements . These charts are printed in high contrast and enables us to check high contrast VA.

Log MAR Chart



LEA Symbol Chart

Some commercially available log MAR distant vision charts are

1. Early treatment Diabetic Retinopathy Study [ETDRS]
2. High contrast Bailey-Lovie chart
3. Sloan's Light house Dstant visual acuity charts
4. Landolt's ring
5. LEA Symbol charts

Some Near visual acuity charts available are

1. Bailey-Lovie word reading chart
2. Lighthouse 'NUMBER' Card
3. Lighthouse Near Visual Acuity Test Chart [modified ETDRS with Sloan letters]
4. Lighthouse Continous Text Card

DO's and Don't's while checking VA in LV patients

- Record monocular as well as binocular VA using the present refractive corrections, if any
- Chart should be held perpendicular to the patient's visual axis ,inorder to avoid glare.
- Always allow eccentric viewing, if the patient desires it. Never force him for a primary gaze.
- If the topmost line cannot be read from standard 3m distance, chart should be brought closer to the patient. VA is then recorded as

$$VA = \frac{\text{Test distance}}{\text{Smallest line read at that distance}}$$

- Never record VA as counting finger or Hand movements
- While testing NVA, it is advisable to use passages in logMAR format.
- Proper illumination should be provided.

The author is
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OPTO TIPS

- *Hjalmar August Schiotz (Norway) invented the Schiotz Tonometer in 1905. He is credited as being Norway's first professor of ophthalmology.*
- *Diaton tonometer measures intraocular pressure through the eyelid (transpalpebral tonometry)& it requires no contact with the cornea.*
- *Hermann von Helmholtz, invented the ophthalmoscope in 1851 & published works on physiological optics, including colour vision.*
- *Frans Cornelis (Dutch) found the way of prescribing combinations of spherical & cylindrical lenses to treat astigmatism.*
- *Jacques Daviel (France) is claimed to the father of cataract surgery in that he performed extracapsular extraction instead of needling.*

ALGORITHM FOR PROPER PRESCRIPTION OF GLASS AND OVERVIEWING LENSES AND FRAMES

Dr.A.ROHAN
DOMS,DNB (OPHTHALMOLOGY)
FICO (CAMBRIDGE)

Opticiary is a specialized area of eye care that includes the making of corrective lenses from refractive prescriptions and fitting of both the lenses and frames for proper visual correction. For the above to have a good happy ending the main role is played by the optometrist. Here we introduce to special optical measurements and techniques used to determine the proper fit of eye glasses.

Although the word refraction might not sound an important word to some but it is actually a fine art and skill that need to be nurtured by each and every optometrist. Objective refraction (auto or manual) and prescribing glasses are different. Prescribing a glass should involve a thorough processes after refining the objective refraction and to suit the individual visual needs. Auto refraction should be used as a companion not to replace retinoscopyfor refraction practice.

There are few things to remember before we start off with our refraction

1. Any history of systemic diseases like diabetes mellitus, renal diseases, arthritis or any other relevant diseases like psychiatric problems.
2. Whether the patient is on any medication.
3. Any history of frequent change of glasses. This can happen for patients with glaucoma, keratoconus etc.
4. Always ask about the need of glass for him/her and what job he is doing.

Observe the patient

I. Right from the point when he/she enters the room

a. A. Positions the head; any tilt or chin elevation

b. Is he comfortable in coming inside the dark room

c. Look at his/her face to see whether he/she is fixing well and any squinting is there.

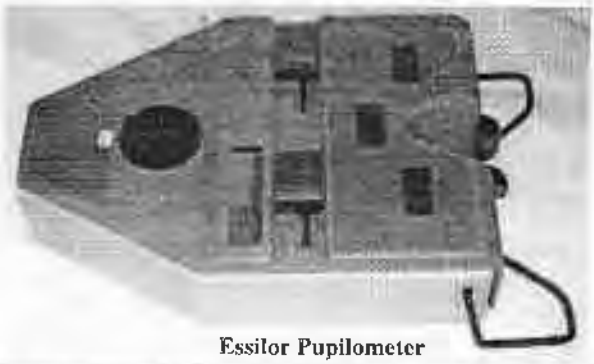
II. Look for any facial asymmetry.
Do a cover/uncover test for any phorias.
See for any change in diameter of cornea and pupil.

While retinoscopy gives the examiner the proper prescription required by a patient for each eye, subjective refraction techniques still remain the main stay of fine tuning the patients refraction.

For eye glasses to be effective patients must feel satisfied with prescriptions and the over all fit of the lenses on the face. To make the patient comfortable and satisfied with eye glasses, optometrists may need to measure interpupillary distance, vertex distance and base curve of the lens.

INTERPUPILLARY DISTANCE

This measurement must be made both for distance and for near and also measure the distance between the optical centres. This is to ensure the appropriate placement of the optical centers(DBC) correspond to the patients IPD. Otherwise the patient can experience double vision.



Essilor Pupilometer

Distance	Near	Distance	Near
24.25	23.00	33.00	26.50
25.00	23.50	33.50	29.50
25.75	24.00	34.00	30.00
26.25	24.50	34.25	30.50
26.75	25.00	35.25	31.00
27.25	25.50	35.75	31.50
27.75	26.00	36.25	32.00
28.50	26.50	36.75	32.50
29.00	27.00	37.25	33.00
29.50	27.50	38.00	33.50
30.00	28.00	38.50	34.00
30.50	28.50	39.00	34.50

Monocular distance IPD with corresponding average near IPD (mm)

VERTEX DISTANCE:

The distance between the back of an eye glass lens and the wearers cornea is the vertex distance. The average vertex distance is 13.5 mm and the most effective fit for eye glasses usually is obtained by fitting the frame as close to eye as possible without the eye lashes touching the lenses.

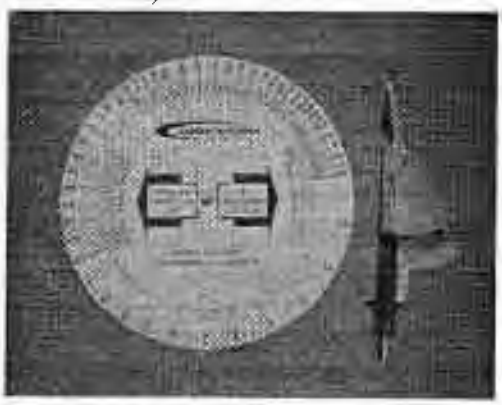
Vertex Distance

DISTOMETER:-

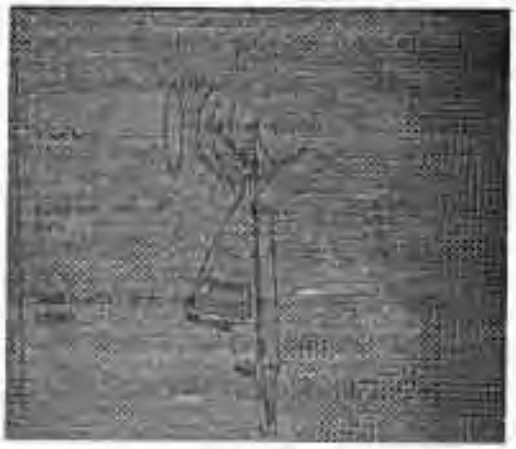
Distometer or vertex distance gauge is designed to accurately measure the vertex distance between the apex of the cornea and the back surface of the trial lens or the spectacle lens.

USING A DISTOMETER:-

1. Instruct the patient to keep the head still and close both eyes.
2. Gently rest the fixed arm of the distometer caliper on the closed eyelid at the center of the cornea and carefully place the movable caliper arm against the back surface of the trial lens or eyeglass lens.
3. Record the separation distance between these two surfaces from the millimeter scale on the distometer. (Note: This scale allows for an average eyelid thickness.)



DISTOMETER



USING DISTOMETER

BASE CURVE:

The base curve of a lens is the original single curve on the front or back surface of a lens blank supplied by the manufacturer.The power of the lens is the algebraic difference between the power of the front curve and that of the back curve.

GENEVA LENS CLOCK:-

Geneva lens clock is a mechanical dial indicator that is used to measure dioptric power of lens. A lens clock measures the curvature of a surface but gives the result as an optical power in diopters.

The lens clock has three pointed probes that make contact with the surface of the lens. The outer two probes are fixed while the center one moves retracting as the instrument is pressed down on the lens surface. As the probe retracts, the hand on the face of the dial turns by an amount proportional to the distance.

USING A GENEVA LENS CLOCK:-

1. Place the front surface of a single-vision lens against the pins in the 180^0 meridian.
2. Note the position of the pointer on the clock dial and record this number. The red scale indicates a concave surface; the black, a convex surface.
3. Rotate either the lens clock or the lens to the 90^0 meridian.

- If the reading remains constant , the reading noted in step 2 is the base curve.
- If the reading changes on rotation, the lens surface has a cylindrical component. The difference between the lower and higher readings represents the amount of cylinder present. The weaker, or lesser, number of the two measured on the front surface is the base curve.

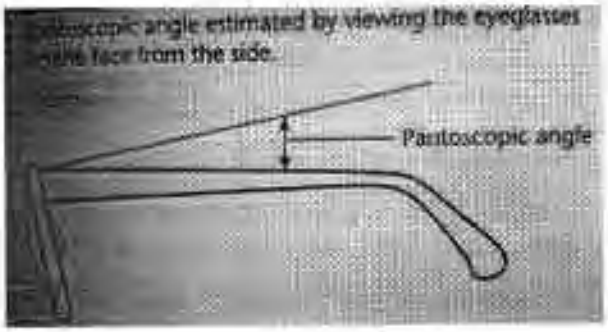
Note : The orientation of the three contact points on the lens clock at the maximum and minimum readings corresponds to the meridians of lens power.

Geneva Lens Clock

PANTOSCOPIC ANGLE:

A usual pantoscopic angle ranges from 4 to 18 degrees and average is 15 degrees. A proper pantoscopic angle allows the eye to rotate downward from the distance gaze to the near gaze while maintaining a similar vertex distance.

Thus for an ideal spectacle prescription,along with lens power , the distance and near IPD, monocular PD, segment type,tint or coating and vertex distance should be mentioned.



DESIGN OF THE LENSES:

Single vision lenses, Bifocal lenses, Trifocal lenses, Lenticular lenses,Aspheric lenses and multifocal or progressive lenses are different lens designs. Lenticular lenses allows high power portions to be made smaller diameter and reduces the central thickness. Radius of Aspheric lenses changes gradually from center to periphery and reduces its central thickness , weight and aberrations.

LENS MATERIALS:

1. Glass:Are made from a combination of Silicon Dioxide and other elements.

2. Plastic lens (CR39), which is chemically Allyldiglycol carbonate, which was created by a Chemist at Columbia Southern Corporation in 1942. CR stands for Columbia Resin and 39 indicated the 39^{th} test resin produced by the company

3. High index lenses:They are made of material other than conventional material.

4. Poly-carbonate lens: It is a high index plastic and has superior impact resistance. It is the lens of choice for safety.

5. Photochromatic glass lens: It has the property to change colour when sunlight & UV rays enter the lens surface. It contains silver halide crystals which under the influence of UV radiations, separates into silver and halide ions.
6. Photochromatic plastic lens: They have 100% UV protection.
7. Aspheric lens: Radius of aspheric lens changes gradually from centre to periphery. Reduce aberration. Less central thickness and less weight.
8. Multifocal progressive lens: Comfortable transition from distance power to near. No lines in way of vision.

LENS ENHANCEMENTS:

It is the role of coating and tints which enhances the performance and appearance of a lens.

1. UV protection: protection ranging from 250nm to 40nm.
2. Scratch ResistantCoatings(SRC): The coatings used to prevent scratch is quartz and siloxane polymer and in this sillxone polymer is preferred now.
3. Anti-reflection coating: This is a thin film technology consisting of a single layer or multiple layers.
4. Hydrophilic coatings: These cause water and moisture to run off the lens rather than coating over the lens surface.
5. Anti-fog coatings: prevents fogging. This is by applying a drop of optifog activator to each side of the lens.
6. Tinting: Any colour can be applied to lens.
7. Polarized sunglasses: These contain a special filter that blocks horizontally polarised reflected light.

Types of spectacle frames

An ideal spectacle material must be durable, adjustable, non-allergic, non-inflammable, non-corrosive and preferentially of low cost.

A. Plastic frames

Cellulose nitrate, Cellulose acetate, Cellulose propionate and Perspex which ispolymethyl methacrylate are used in the manufacture of plastic frames.

B. Shell frames

Made from blanks after pressing together two pieces of steamed turtle shells and are durable.

C. Nylon

Used in making spectacles for children. Chance for breakage is less.

D. Metal Frames

Stainless steel, Nickel silver, Anodized aluminium, Gold, Beryllium and Cobalt are used for making metal frames.

E. Frame Styles

Whether plastic or metal, ophthalmic frames are available in many different styles like full frame, full rimless or drill mount, semi rimless and combination.

Refraction is very vast topic and this hopefully will be an eye opener in giving a good spectacle prescription and in the selection of lenses and frames.

The author is
Dr.A. Rohan, working as
Junior Consultant, DH, Palakkad
("HAMSAM", ROBINSON ROAD)

CATARACT

Dr. Jayesh Thompson. D.O.A., B.H.M.S
Senior Optometrist
Kerala Health Services Department

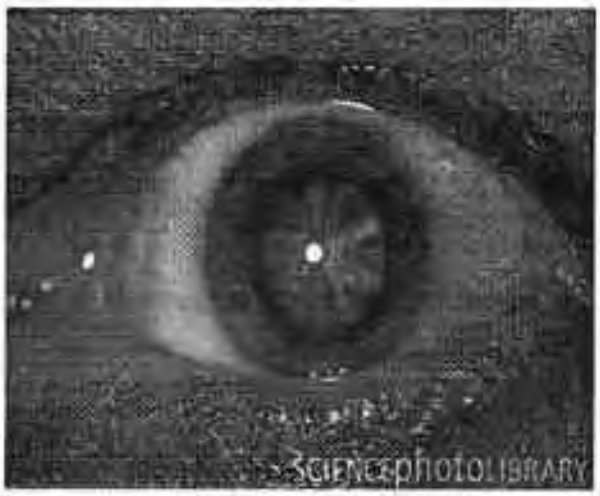
Miracles in Homoeopathy

I would like to introduce this system of medicine to my co-workers briefly. Homoeopathic medicine is an alternative system of medicine which is becoming widely popular around the world. Homoeopathy means to treat with drugs that produce similar suffering. This system individualizes patients by differentiating the differences in the manifestation of the disease that they suffer and may give different medicines to each one of them even though all of them suffer from the same disease. Homoeopathic medicines are prescribed by considering the totality of symptoms manifested in a patient. These include the mental, emotional, spiritual and physical peculiarities of a patient and also the uncommon peculiar signs and symptoms of the disease in each patient.

According to homoeopathic philosophy diseases are caused by a dynamic entity called "miasm" and health is maintained by another force called "Vital force". When we become sick the miasm dominates our body. The nature of miasm in each patient is expressed through the signs and symptoms of disease manifestation or the totality of symptoms of the patient. When we administer homoeopathic medicine to a patient, we produce another force which is similar to the miasmatic force because homoeopathic medicines are selected based on the symptom similarity between the miasmatic expression and the symptomatology of different medicines produced in healthy human beings. So when the similar forces meet each other they repel each other thereby freeing the vital force from the influence of miasm. Thus, the vital force regains its control and dominates the body, bringing it back to normal health. Since the vital forces

possess the ability for self healing, the purpose of homoeopathic medicine is to help the vital force to strengthen its weakened self healing abilities.

Cataract



As we all know cataract is any opacity in the lens or its capsule. In soft cataract hydration followed by coagulation of lens protein first appears in the cortex. But in nuclear cataract sclerosis takes place in the lens nucleus which is slow and progressive.

Let me share the experience which I felt in my practice while treating cataract patients .I have not doubt that a careful selection of drugs, according to the homoeopathic law and their continuance for a long period will succeed in checking the progress of the disease and even clears up a portion of the diffuse haziness, thus improving vision to a certain extent.

Homoeopathic system of medicine is only effective in the early stages of cataract ie; incipient and immature stages. Once the degeneration of the lens fibers has taken place, no remedy in any system of medicine will restore the lost transparency of the cataractous lens to its original state. What this system of medicine does is, it prevents the further progress of lens opacification. When the lens becomes mature we must then resort to operative measures.

Medical treatment consists of the selection of remedies according to the constitutional symptoms observed in the patient. Remedies are not decided according to the morphological types of cataract.

The following drugs have been found most efficacious in arresting the progress of cataract.

Cineraria maritima

Botanical: Senecio maritima

Family: Compositae

Synonym: Dusty Miller

Parts used: Juice of leaves

Habitat: shores of the Mediterranean, on the maritime rocks of Holy head.

Description: The word cineraria means ashy grey. A beautiful perennial plant propagated by cutting, layers or seeds. Belongs to groundsel or ragwort family. The species takes its name from senex (an old man) in allusion to the white hairy pappus which crowns the achenes. The leaves are about 6 inches long, 2 inches wide pinnately divided; flower yellow.

Uses:- is the only drug for cataract that can be used externally, by instilling into the eye, one drop 2 to 3 times daily for several months. It is effective in the cure of cataract and corneal opacities.

Other constitutional drugs for the treatment of cataract are Phosphrous, Cannabis, Causticum, Naphthalin, Ledum, Natrum mur, Silicea, Calcarea Phos, Calcarea Fluor, Platanus, Quassia etc.

In addition to the medical treatment just referred to for immature cataract, frequent and accurate refraction should be carefully examined and spectacles are prescribed to maintain vision at the best possible level. Treatment for other systemic diseases especially diabetes must be treated with suitable medicines as it favours the progress of cataract.

Let me conclude this topic by advising to all my co-workers to prescribe cineraria maritima eye drops locally, as it has no side effects after prolonged use, for all the immature cataract patients especially for those who have fear for surgery and in high risk old people suffering from cardiac diseases and severe hypertension. Constitutional drugs must also be given along with this topical eye drops after consulting with homoeopathic physicians.

The author is a
Senior Optometrist working
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9TH GENERAL ASSEMBLY OF INTERNATIONAL AGENCY FOR PREVENTION OF BLINDNESS

Highlight:- Dr. A.P.J. Abdul Kalam, former President of India as guest to the ceremony

Address By Dr APJ Abdul Kalam

Details covered in this paper would be incomplete since a detailed reference were not included about the talk delivered by Dr APJ Abdul Kalam. The Former President in hisspeech said that quote, "he was delighted to participate in The 9th General Assemblyof International Agency For Prevention of Blindness. Vision 2020 has created unique awareness among Doctors, Patients & Social Transformers. This has resulted in goodimpact on care giving & reduced the number of cases of Unavoidable Blindness in India.

Though substantial progress in reduction of avoidable blindness has been made in thecountry through VISION 2020 Program, diseases such as Glaucoma, Diabetic Retinopathy are increasing very fast for which we in India have to find 'CostEffective'solutions.

Dr Kalam suggested missions for Eye Care upto the year 2020.He suggested his Experience with Eye Care instutions in the World and in India. He said his visits to Opthalmic Institutions in India and abroad brought out one aspect that was "intensity ofresearch & clinical treatment" which needs to get enhanced by increasing the Research

Scientists, Clinical Doctors and Para Medical Staff who are totally involved in research. Dr Kalam suggested that IAPB should make suitable recommendations as part of 9GA so that adequate research capacity measures for Opthalmic Care can be built both by Governments and Private Eye Care Institutions.

World Knowledge Platform. Contuning further Dr Kalam said IAPB should consider in evolving a World Knowledge Platform for Opthalmology which can bring together the expertise available in all parts of the world in a single platform with THREE MISSIONS:

a) Glaucoma Research.
b) Early Diagnosis & Treatment of Retinopathy.
c) Working out a donor friendly law for Organ Donation.

Dr Kalam further elaborated on Research Areas in the world which give hope intreatment of Glaucoma.He further gave suggestions on World Health Organisation
ZERO DRAFT which brings out the action plan for reducing avoidable blindness in the next 8 years. The former President concluded by saying that relations between patient and doctor goes beyond medical needs and, as in the student-teacher case,the patient's family is also involved . Nanotechnology had largescale applications in drug delivery systems, he said and hoped further research would lead to a costeffective and innovative treatment process for Glaucoma. Dr Kalam thereafter administered an oath to the participants of 9 GA IAPB.

Kavitha. P
Optometrist , CHC, Elanjipra

A New approach to develop personalized gene therapies for people suffering from retinitis pigmentosa (RP) has been developed by the researchers.

The RP is one of the major causes of vision loss.

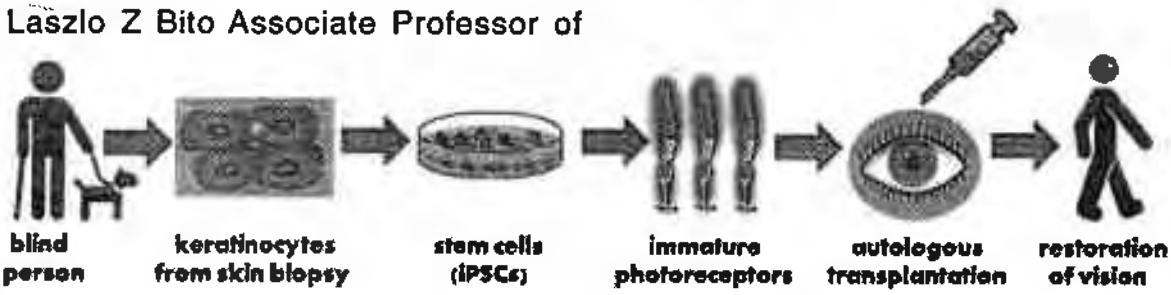
The approach uses induced pluripotent stem cell technology to transform skin cells into retinal cells. These cells are then used by the researchers as a patient-specific model for disease study and preclinical testing.

The researchers from Columbia University Medical Center (CUMC) used this approach to show that a form of RP caused by mutations to the gene MFRP (Membrane frizzled-related protein) can disrupt the protein that gives retinal cells their structural integrity.

The use of patient-specific cell lines for testing the efficacy of gene therapy to precisely correct a patient's genetic deficiency provides yet another tool for advancing the field of personalised medicine."said stephen H Tsang, the Laszlo Z Bito Associate Professor of Ophthalmology and associate professor of pathology and cell biology.

RP could also begin during infancy but its first symptoms typically emerge in early adulthood, causing night blindness. In later stages, the photoreceptors in the macula are destroyed by the RP. The photoreceptors are responsible for fine central vision.

"This study provides both in vitro and in vivo evidence that vision loss caused by MFRP mutations could potentially be treated through AAV gene therapy", said coauthor Dieter Egli, an assistant professor at CUMC. The paper was published in Molecular Therapy, the official journal of American Society for Gene and Cell Therapy.



Courtesy - Science India

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Palakkad – 678623
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- Retd. Head Master (1990)
- Executive Member District Literacy Mission
- Director Mahatma Study Centre
- Co-ordinator and Worker of Jail Literacy & continuing, education , Palakkad District
- Secretary,Pudussery Janasevana Charitable Society
- Para Legal Volunteer
- Hony, skill Trainer
- 0. Faculty of Awareness classes and camp organizer
- 1. Member – Natyacharian Pattikkamthody Ravunni Memorial Trust
- 2. Trustee of Palakkad Kathakali Trust
- 3. Honarary Member of 'Viswas'
- 4. Faculty Member of Election Literacy (DLM)
- 5. District Co-coordinating Convener of Jail Literacy
- 6. Executive Member, District Adult Education Committee
- 7. District Council Member & President Senior Citizen Forum Pudussery Unit
- 8. Chief Patron , Pudussery Kailas Nagar Residents Association
- 9. ExecutiveMember,District Thenvarikka Association

നേത്രദാനം മഹാദാനം

(ഓട്ടൻതുള്ളൽ)

എന്നാലിതിനൊരു കഥയുരചെയ്യാം നേത്രദാന മാഹാത്മ്യത്തിൻ കഥ
നേത്രദാനം മഹാദാനം ആപ്ത വാക്യം കേട്ടിട്ടില്ലേ
പഞ്ചേന്ദ്രിയങ്ങളിൽ മുഖ്യമതാകും നേത്രംതന്നെ സംശയമില്ല
കർണ്ണങ്ങൾക്കൊരു കോട്ടം വന്നാൽ മുഖത്തുനോക്കി കാര്യം നേടാം
നാസികയ്ക്കൊരു കോട്ടം വന്നാൽ പ്രതിവിധി നേടാം സംശയമില്ല
നാവുകൾക്കൊരു കോട്ടം വന്നാൽ മുദ്രകൾ കാട്ടി പ്രകടിപ്പിക്കാം
ത്വക്കുകൾക്ക് ക്ഷീണം വന്നാൽ ചികിത്സനേടി പരിഹരിക്കാം
നേത്രങ്ങൾക്ക് കോട്ടം വന്നാൽ അർത്ഥശൂന്യം ജീവിതമാകെ
നേത്രങ്ങൾക്ക് കോട്ടം വന്നാൽ പരിഹാരവും നേടാനായി
മറ്റൊരു നേത്രം നേടിയെടുത്ത് വെളിച്ചം നേടാം സംശയമില്ല

XXXX

അന്നദാനം വസ്ത്രദാനം രക്തദാനം അവയവദാനം
ദാനങ്ങൾ നിരവധിയുണ്ട് കേട്ടുകൊൾവിൻ സോദരൻമാരെ
നേത്രദാനപ്രസക്തിയേറും ദാനങ്ങളിൽ ഉപരിയതായി
നേത്രദാനം മഹാദാനം പുണ്യമായുള്ളൊരു ദാനം
നേത്രദാന പ്രതിജ്ഞയെടുത്ത ദാനശാലികളുടെ കണ്ണുകൾ
മരണശേഷമെടുത്തിടുന്നു ഭദ്രമായി സൂക്ഷിക്കുന്നു
നേത്രബാങ്കിൽ സൂക്ഷിക്കുന്നു സുരക്ഷിതമായവ സൂക്ഷിക്കുന്നു
ആവശ്യങ്ങൾ വന്നുകഴിഞ്ഞാൽ നേത്രരോഗവിദഗ്ധർ വഴിയെ
ബാങ്കിൽ നിന്നും കണ്ണുകൾ വാങ്ങി നേത്രം നഷ്ടപ്പെട്ടോർക്കുടനെ തന്നെ
കണ്ണുകൾ നൽകി സുരക്ഷിതമാക്കി വെളിച്ചം നൽകാൻ വഴികാട്ടുന്നു
കണ്ണുകൾക്കിത്തിരി വെളിച്ചം നല്കുമ്പോൾ ജീവിതമാകെ ശോഭനമാക്കാം
നേത്രദാനപ്രതിജ്ഞയെടുക്കൂ ഉറ്റവരുടെ സമ്മതം നേടി
പുണ്യമതായ കർമ്മം ചെയ്യൂ സാഫല്യത്തെ നേടിയെടുക്കൂ
എല്ലാവർഷവും കൊണ്ടാടുന്നു നേത്രദാനപക്ഷാചരണം
ബോധവൽക്കരണക്ലാസ്സുകൾ വഴിയെ നേത്രദാന പ്രതിജ്ഞകൾ വഴിയെ
മുപ്പതുവർഷം പിന്നിട്ടുള്ള നേത്രദാനപക്ഷാചരണം
ശക്തമായി മുന്നേറുന്നു മാലോകരുടെ പിന്തുണയോടെ
മരണാനന്തരം നൽകാനുള്ളത് നേത്രദാനം മാത്രമതാണ്
ബന്ധുക്കളുടെ സമ്മതം വേണം പ്രതിജ്ഞയെടുത്താൽ മാത്രം പോരാ
മരണാനന്തരം കണ്ണുകൾ നൽകാൻ മാലോകർക്ക് മനസ്ഥിതിവേണം
നേത്രദാന പ്രസക്തി ഗ്രഹിച്ച് നേത്രദാന പ്രതിജ്ഞയെടുക്കൂ
നമ്മുടെ കണ്ണുകൾ മറ്റുള്ളോർക്ക് വെളിച്ചം നൽകാൻ, പുണ്യം നേടാൻ
നേത്രദാനം മഹാദാനം , നേത്രദാനം മഹാദാനം
ആവർത്തിക്കൂ മുദ്രാവാക്യം പദ്ധതിയിൽ പങ്കും ചേരൂ

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DEMANDS PRESENTED BEFORE NOA

Kerala Government Optometrists Association state committee put forth a few demands to be discussed before National Ophthalmic Association which may be taken up in its future activities.

1. Create more ophthalmic Assistant/Optometrists post nationwide through NPCB (The criteria must be one Ophthalmic Assistant/Optometrists for 50,000 Population. At present it is one for one lakh population.
2. Formation of a National Optometry council to regulate optometrists and school and colleges optometry. A National council or a Central Act to regulate optometry profession is not going to materialise, please advice state organisations to form state council.
3. The minimum common Optometry curriculum should be a 4-year Degree course. Basic qualification for Ophthalmic Assistant / Optometrists in Government sector should be fixed as four year degree course. All 2- year diploma courses must be stopped and upgraded to 4 year Bachelor of Optometry", B.Optom) through out the country with same syllabus. Present Diploma holders may be given opportunity for upgrading to Bachelor degree through one year bridge course.
4. Optometrist is the universally accepted designation of vision care professionals all over the world. Bring up Optometry a separate department Parallel to Ophthalmology. So a proposal to a common designation as Optometrists for Government working ophthalmic assistant may be given.
5. Fix criteria for issuing license to optical shops, especially those conducting vision examination. Qualified optometrists from recognized institution must be made mandatory in optical shops and clinics conducting vision tests.
6. Enquiries need to be made concerning the establishment of 20 schools of Optometry.
7. Go ahead with the proposal of new duty chart till it gets approved.
8. All unauthorised optometry courses operated by BSS and NCVT should be ordered to stop immediately.
9. In order to promote eye donation for the treatment of corneal blindness, proposal should be given before central government to pay a minimum sum of Rs.25, 000 as funeral expense for those who donate.
10. **Take immediate step to stop all short term courses in Optometry, especially Vision Technician course. Exclude optometry from Prime ministers (PMKY) Programme.**
11. Optometrists working in Government sector may be allowed to issue vision certificate for driving licence.

R.Binoy.
General Secretary
Kerala Government Optometrists' Association.