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JAN SEVA MANDAL
KORIT ROAD,
MANDAYAR 425 412

Nethra Chikithsa

A manual on Eye Care in
Traditional Medicine

AN L S P S S PUBLICATION

COIMBATORE

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A manual on Eye Care in
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NETHRA CHIKITHSA
IN
TRADITIONAL MEDICINE

STUDY OF ITS ROLE IN PREVENTION, HEALTH PROMOTION
AND CURE OF A VARIETY OF DISEASES IN YOUNG AND
OLD INCLUDING REMEDIES AVAILABLE IN AYURVEDA
AS WELL AS TRADITIONAL PRACTICES.

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INTRODUCTION

Of all human organs the eye is structurally the most delicate one. This being our window to the world around us the preservation and promotion of its health and its protection from a multiplicity of ailments, caused by systemic weaknesses, external injuries, congenital defects, infection and so on, should be a prime concern of all the disciplines of medicine. Thus it is necessary to educate the public about the need for systematic care of eye.

Let us take the case of a new born baby. Which of our parents take a close look at their blossoming eyes to find out whether they have a proper vision. If the infant's eyes water or turn red, if they persistently turn their faces to one side indicating distorted vision, the parents must take note of it and get them examined by experts. And corrective measures in time so that the damage to the eyes due to delay in treatment can be avoided. The best way to find out whether a child has good vision in the neonatal period, is to put up a piece of cloth or a flower before its face and watch its responses. If the child watches the flower it can be concluded that the child has normal eye sight. Similarly the vision of each eye may be examined by respective covering and watching of each eye.

If defective vision sets on when the child reaches the age of three or four, discerning elders have means of finding it out. If the child looks at an object holding close to its eyes and fails to register its vision in distant objects, it would be correct to conclude that the child's eye sight is waning and the advice of experts has to be sought to initiate remedial curative treatment.

It would be interesting and at the same time instructive to analyse the causes that contribute to defective vision.

According to Acharya Susrutha the following signs and symptoms in the eye enables a wise physician to think that the respective eye is affected with the vitiated doshas.

They are as follows.

Dirtyness, angry look, heavy motion, itching, stickiness, heaviness, burning sensation, pricking pain and redness of the eye etc. These are the probable features of the eye diseases.

CHAPTER I

CLASSIFICATION OF EYE DISEASES ACCORDING TO " SUSRUTHA " & Its possible comparative names.

Aacharya SUSRUTHA classifies eye diseases into 76.

20 diseases of VARTHMA (eye lids).

1. Uthsangini - Hordeolum internum
2. Kumvheeka - Multiple styes
3. Pothaki - Trachoma
4. Varthamasaykra - Spring catarrh or granular trachoma
5. Arsovarthmam - Papillary form of trachoma
6. Surkarshas - Granuloma or polypus like growth
7. Anjana naamika - Stye
8. Bahalavartmam - Multiple meibomitis?
9. Vartha-avabandhakam - Allergic oedma of eye lids.
10. Klishta varthmam - Palpebral type of spring catarrh
11. Kardama varthmam - Lid abscess
12. Shyaava varthmam - Lid haematoma or ecchymosis
13. Praklinna varthmam - Conjunctivitis
14. Aklinna varthmam - Mucopurulent conjunctivitis
15. Vaatha hatha varthmam - Lagophthalmos or ptosis
16. Arbuda - Polyp or papilloma
17. Nimesha - Frequent blinking
18. Sonitha-arsahs - Warts
19. Lagasa - Chalazion
20. Paksha kopa - Trichiasis or entropion
21. Bisa varthmam - Ulcerative conjunctivitis

9 SANDHI GATHA ROGAS (9 diseases in Junctional areas)

1. Pooyaalasam - Acute dacryocystitis or acute inflammation of lachrymal gland.
2. Upanaaham - Marginal chalazion or lachrymal cyst
3. Pooyasraavam - Purulent dacryocystitis / lachrymal abscess
4. Sleshma-sraavam - Chronic dacryostitis or mucocele
5. Raktha-sraava - Haemorrhagic dacryocystitis
6. Pita-sraava - Subacute dacryostitis
7. Parvani - Phlyctenular conjunctivitis or limbal nodules
8. Alagi - Multiple phlycteus
9. Krimigrandhi - Chronic blepharitis or pedicularis palpebrae

11 diseases SUKLA-SANDHI (of scleral part or conjunctive of eyes)

1. Prasthari armam - Pterigium
2. Sukla armam - Pinguecula
3. Lohitha armam - Progressive pterignn
4. Snayu arma - Tumour of conjunctivitis
5. Adhimamsa arma - Papilloma
6. Sukti - Kerosis
7. Arjuna - Subconjunctival haemorrhage
8. Pishtaka - Limphangioma
9. Sirajala - Haemangioma
10. Sirapithaka - Phlectennular or limbal nodules
11. Balasa-gradhita - Conjunctival cyst

4 diseases of KRUSHNA-SANDHI (Cornea)

1. Savruna sukra - Corneal ulcer
2. Avrana sukra - Corneal opacity
3. Akshi-paakaathyaya - Keratitis
4. Ajakajatha - Prolaps of irris or anterior ataphyloma

17 diseases affecting all parts of eye (SARVAGATHA ROGAS)

1. Vathabhishyanda - Subacute (catrrhal conjunctivitis)
2. Pithabhishyanda - Acute (catrrhal " ")
3. Kaphaja abhishyandam - Purulent conjunctivitis
4. Raktha abhishyandam - Acute mucopurulent conjunctivitis
5. Vaatha adhimandham - Acute congestive glaucoma
6. Pittha adhimandham - Secondary glaucoma
7. Kapha adhimandha - Chronic glaucoma
8. Raktha adhimandha - " "
9. Ssopha akshi-paaka - Panophtalmitis
10. Asopha " " - Non - inflamatory atrophy
11. Hastha-adhimandha - Atrophic bulbi following acute glucoma
12. Vataparyaya - Ocular pain
13. Sushkakshipaaka - xerophtalmia
14. Anyathovaatha - Referred pain in the eye
15. Amlaadhushitha - Chomosis
16. Sirotpata - Episolritis
17. Sirapraharsha - Allergic hyperaeming of the eye ball.

12 diseases affecting DRUSHTI-MANDALAM (lens)

1. Pittha vidagdha drushti - Day blindness
2. Kapha vidagdha drushti - a kind of night blindness
3. Dhooma drushti - Haziness of vision
4. Hraswajaadyam - Retinitis pigmentosa or
central opacity of lense
5. Nakulaandhatha - Maculopati
6. Gambheerika - Acute iridocyclitis
7. Vaathaja thimiram - Type of cataract
8. Pitthaja thimira - " "
9. Kaphaja thimiram - " "
10. Rakthaja thimiram - " "
11. Sannipaathaja thimiram - " "
12. Parimlaayi kaacham - " "

2 AAGANTHU exogenous types

1. Nimitha diseases
2. Animatehaja diseases

CHAPTER - II

DESCRIPTION OF IMPORTANT THERAPEUTIC METHODS IN NETRA ROGAS

Our great Acharyas have elaborately described about a variety of therapeutic methods for various diseases of the eyes in the treatises of Ayurveda. The effect and the range of the various modes of therapy are very vast. Let us consider here one branch of treatment which consists of the application of specific preparations of selected medium for specific eye ailments.

There are a variety of therapeutic measures specifically for the eyes. This includes Sirovasti, Nayanavasti, Nasya, Agnikaram, Raktamoksha etc.

SIROVASTI

Here the medicated oil or ghee is applied on the head in a large quantity in such a way that the medicine doesn't spill out of the head. For this, the periphery of the head is raised with a thick border made out of leather or plantain leaves. This again is pasted thoroughly by a strong paste of 'Masha'. The medicine is kept on the head for a time of 30 to 60 mts.

NAYANA-VASTI

In this unique method the prescribed medicine is poured into the eyes in adequate amount so as to dip the eyelashes in the medicine. A paste made of 'Masha' water is used for bordering the eyeball. The time ranges from 10 to 30 mts.

These treatments are mainly aimed at strengthening the power of the 'nadies'(nerves) related to vision.

NASYA

Medicated oil or ghee is dropped to the nostrills by finger tips or by using droppers. The medicines, by their potency, act on various 'nadies' and stimulate their strength. Usually this is performed in the mornings and evenings. One course of treatment is completed in 7 days to 14 days. Sweating may also be performed before Nasya. This helps in fast spreading of the medicine.

RAKTAMOKSHA

This is a very ancient and effective therapy for blood born diseases of eye and pithaja diseases. Here blood is let in selected veins or areas by venesection, scraping with leaves or by applying leech.

Wild variety of leeches are not used for this purpose. The selected leeches are kept in 'Haldi water' for 3-5 hours. During this period the leeches are not fed. After application, i.e. after a prescribed time the leech can be withdrawn by applying rocksalt on its mouth.

LEKHANA

Here the eye lids are scarped so as to release a little quantity of blood which is vitiated by the doshas and causes the diseases such as small ulcers, itching etc. The oral medication may also be given which helps harmonising the doshas or curative factors of diseases.

CHAPTER - III

CARE OF EYES IN NEW BORN BABIES & CHILDREN

Maternal and paternal factors contribute in the making of a child and so it naturally inherits at birth their physical and often behavioural qualities both good and bad. The condition of the bodies of the parents at the time of their union also plays a significant role in the make up of the child. The inherent weaknesses of the parents, the influence of the adulterated food they consume, unhealthy habits like smoking, consumption of alcohol, drugs etc. affect in large measure the health of the child in general and the eye in particular.

There is a difference in approach to Management of refractive errors in Modern medicine when compared to Ayurveda. Many people may not even be aware that Ayurveda can arrest the refractive errors of the eye, such as Myopia, Heterropia etc. In Modern medicine appropriate lenses are used for the correction of refraction. In due course of time subsequent deterioration of vision may result and need for further powerful lenses for correction. Contrary to this in ISM, the correction is ultimately done by nourishing the eye and making them correct the refraction themselves. This on one hand corrects the refractive power and on the otherhand make the eye healthy and prevent from further deterioration of the power of lense.

A patient who loses sight of one eye may not be aware of his loss as the other eye retains vision. Parents of these children who suffer such loss of partial eye sight must take special note of this. An occasional check up by an eye expert would bring this to light and if treatment is given promptly, further deterioration of eye sight can be prevented and the vision may be restored. The grown ups become aware of the loss of one eye only on casual discovery, say when they on some chance or occasion close the healthy eye. But there may be people who would not become aware of it even on such experiments.

Progressive loss of vision and other congenital defects noticed in children are due to the weaknesses inherited at birth from parents who have fundamental weaknesses or whose health has whittled down by irregular and unhealthy habits like consumption of liquor and drugs. If both the parents are healthy, children born to them are bound to have good eye sight.

Maternity care in modern times is extremely different from what was observed in olden days. Expectant mothers were made to do proper physical excercises. These were done with the discharge of routine domestic chores such as pounding of paddy grinding wheat, drawing water etc. Such exercise condition their bodies for effort less and safe delivery. The healthy habit of the mother during pregancy influences the health of the eyes of the child.

Another very important factor that shapes the health of the child is breast milk. Our Acharyas of yore put great emphasis on breast feeding and have all along held that the child's health depends on the breast milk of the mother. Enlightened medical opinion tells us that for the allround health and immunity of the child, breast milk is indispensable and that should be given as long as it is possible. In modern times most of our children are deprived of the benefit of breast milk as their mothers are away at work during the day time and are therefore condemned to lead a life with artificial nourishment. This adversely affects the development of the child. Besides this the quality of the food that the expectant mother takes also influences the child.

DISEASES AFFLICTING CHILDREN

I. Kukunakam

Signs and symptoms of Kukunakam

The child suffering from this disease will have severe itching in the eye, its surrounding areas, forehead and in the nose. It will have incessant discharge from the eyes, as the sign it may rub its eyes and the surrounding areas and the head, forehead etc.

Kukunakam . Ophthalmia Neonatorum

This is exclusively seen in newborn babies. It is caused by the vitiation of the breast milk of the mother. So as the procedure in treatment the mother and the child should be treated at the same time for the cause and the onset of the disease.

Management

The mother should be put into a controlled diet and medication. A decoction, made out of Triphala water treated with 'netrabhasma' may be used for washing the eyes. After blood letting, any medicated ghee such as Doorvadi or 'shathahwadi' etc. may be applied on eyes to sterilize the vitiated blood, after washing the eyes with decoction. A medicated paste with the white part of an egg may be applied. This is to be continued for four or five days or till the subsidence of the disease.

II. Magala Garbhasoola (Balamarana Suklam)

The following symptoms manifest in the children indicating the presence of the above disease.

1. The child at birth keeps its eyes close
2. When it reaches the age of 6 months, it becomes weak
3. It closes the eye on approach to twilight.
4. There is an increase of bile
5. It does not sleep during the day time.
6. The lactating mother lathers at the nipples.

If the above symptoms appear, it is possible that on the first day of its birth itself a substance like the peel of white onion emerges from the eyes and on the eighteenth day it comes out of the eyes like the fruit of 'Njaval'. This will happen in the right eye if the child is male and in the left eye if it is female. This is called 'Balamarana Suklam' and now-a-days this is very rare in occurrence (very rare disease)

Treatment

1. Chandanadi oil may be applied on the eyelids.
2. The eyes may be washed with 'panchakolam'.
3. Apply Desapushpadi oil on the head of the child.
4. Padavaladi ghee shall be given to the child for consumption in appropriate dosage.
5. Ashtapatradi oil may also be applied to the head of the child.

III. Balakacham (Cataract in children)

Symptoms

In the initial stages what looks like the scales of fish will be seen to emerge in the pupil. There after the child loses its vision by sunset. If the treatment is taken at this stage, it can be cured. Or the child may lose vision at day time also and it becomes incurable.

IV. Pithasoola

Symptoms

1. The stomach progressively bulges out.
2. There is burning sensation in the head.
3. The child has an undigested loose motion in several times a day.
4. The organs below the waist show the signs of muscular atrophy.
5. The child suckles the mother when she is pregnant.

If the child droops its head with closed eyes, cure become impossible. If the eyes are opened the child may survive.

Treatment

For the above said diseases the following treatment should be carried out, at an early stage.

1. The padavaladi ghee, given in proper dose daily is effective.
2. The sheeps liver prepared in ghee also effective

For the health of the eyes of children the following is given.

Punarnava, complete with its root may be ground into pulp, mixed with milk and given to the children every day for a few days (general).

These treatment are effective at earliesr stages. The children affected with these diseases should be treated before the age of twelve.

CHAPTER IV

EYE DISEASES PREVALENT IN INDIA AND THEIR MANAGEMENT

1. THE DISEASES AFFECTING " VARTHMA " (eye lid).

1a. Pothaki (Herpes or Trachoma).

Symptoms:

- Granular formation (similar to red mustard) in the eye lids.
- Itching
- Discharge
- Heaviness
- Pain

Treatment: (in order)

- Blood letting (first)
- Apply a paste of Rock salt and dried ginger.
- Wash with boiled warm water/ decoction of KHADIRA, seeds of THUVARAKA and bark of SIGRU. - or -
- Wash the eyes with a decoction prepared with HARIDRA, DAARUHARIDRA, THRIPHALA and YASHTIMADHU + honey.

1b. Vaatha-hatha Varthmam (Ptosis or Lagophthalmos).

Symptoms:

- Painful or painless condition
- Unable to close the eyes.
- Lose mobility of the eye lids

Treatment:

- Oil application on head
- Nasya karma with ksheera bala medicine.
- Tharpana with Vaatha hara oils.
- Massage the eyes with vatha-hara medicines.

1c. Kardama Varthmam (Lid abscess or purulent conjunctivitis)

This disease develops due to the vitiation of Pittha and Raktha in the eye lids.

Symptoms:

- Unable to move eye lids
- Soft eye lids
- Painful eye lids
- Reddish colour

Treatment:

1. Continuous pouring of (dhaara) 15 -30 mts for 3 days with the decoction prepared with THRIHALA, YASHTIMADHU, LAAKSHA, and the flower buds of PAARANTHI (Ixora coccinia?), and a paste of the seeds of MAROTTI () is applied externally.

2. A decoction prepared with HARIDRA is used as a wash.

1d. Anjananaamika (Stye)

A small boil found on the margins of the eyelid is known as anjananaamika. This is accompanied with following symptoms.

Symptoms:

- Soft
- Copper in colour
- Painfull
- Burning and pricking sensation.

Treatment:

- Blood letting with leeches
- Application of MAROTTI oil
- Daily use of Karpooradi Kuzhambu (ext) for prevention

1e. Uthsangini (Chalazion)

A boil which has its base externally and is situated in the lower lid pointing internally is called Uthsangini. It is surrounded with similar boils on the lid.

Treatment:

External use of MAROTTI oil medicated with the leaves of DOORVA or SIGRU is beneficial.

A ghee prepared with the bud leaves of AMBAZHAM is given with honey. This ghee is useful in all eyelid inflammations.

1f. Arsho varthma (Papillary form of Trachoma)

This is a condition in which small rough projection characterised by mild pain and it appears like the seeds of Cucumber in the eyelids.

Treatment:

Recurrence of the growth is found even after surgical removal. So it is difficult to cure.

- Apply Karpooradi kuzhambu daily
- Apply MAROTTI oil on affected parts.

1g. Akshi-paakathyaya (Keratitis)

A whitish opacity which covers the whole cornea owes its origin to inflammation of eye and extremely painful is called Akshi-paakaathyaya.

Treatment:

Then the disease has advanced to this stage, the cure becomes difficult. So one should be vigil and to avoid the progression of any sore of inflammation on eye, which on negligence develops to Akshipaakathyaya.

The medicines may be applied to reduce the inflammation which are used in the case of Abhishyanda. Decoctions made with THRIHALA, YASHTIMADHU and honey.

2. DISEASES AFFECTING THE KRISHNA MANDALAM (Cornea)

2A. Savruna sukla (Corneal ulcer)

Here the cornea becomes denuded and appears as if pierced by a needle and accompanied by severe pain.

2B. Avruna sukla (Corneal opacity)

When a white spot appears in the cornea caused by Abhishyanda and is not associated with excessive pain or laceration and resembles a cloudy white sky it is called the avruna sukla.

2C. Ajakaajaatha (Prolapse of iris or staphyloma)

The boils in the eyes resemble goat's faecal matter with severe pain and inflammation.

Treatment is mainly surgical. Blood letting with needle is recommended.

3. DISEASES AFFECTING DRUSHTI MANDALAM (Lens)

Thimiram or cataract is the major disease affecting this part of the eye. Please see chapter VI for more details.

4. ABHISHYANDAM (Acute Catarrhal conjunctivitis)

Please refer chapter V for more details.

5. ADHIMANTHA - Glaucomas

When the abhishyanda or conjunctivitis aggravates it is known as Adhimantha. Severe pain and swelling is found and leads to lose of vision.

CHAPTER V

ABHISHYANDAM (VARIETIES OF CONJUNCTIVITIS)

This is a very common eye disease which is simple to treat in the initial stages, but can be dangerous if left untreated. This disease is characterised by irritation in eyes, exudation of pus and reddishness of eye. The eyes become swollen and around the black of the eyes ulcers develop which is very dangerous. It must be noted that ulcers develop because the eyes are kept closed and they are not washed well and cleaned.

The following treatments are advised for this which are less expensive, safe and effective.

1. The roots of HASTHAPAADI () is made into a paste with breast-milk and applied into the eyes in morning and evening.
2. A decoction is made with DRAAKSHA (grapes, vitis vinifera). Honey and ghee is mixed with the decoction and filtered. This is used externally as a wash frequently.
3. The flowers of DRONAPUSHPPI (Lucas aspera) and LASUNAM (garlic, Allium sativam) are taken and a juice is prepared. Juice is poured into oppsite toes of the leg ie. if the left eye is affected, the prepared juice is poured on the right toe. This will relieve the complication of the disease on long term use.
4. THAAMBOOLAM (betel leaves) leaves paste with gingelly oil is warmed on fire and juice is prepared. Juice is mixed with a paste of camphor, ghee and honey. Two drops of the juice dropped into each eye three or four times daily gives good result.
5. A powder prepared with the faecal matter of rat and camphor is applied on a cloth by mixing it with ghee and honey. The cloth is squeezed and 2-4 drops of medicine is dropped into the eyes twice or thrice daily.
6. THUTTHAM, YASHTIMADHU, NIMBAM (bark juice, gum?) are ground with the juice of "AMBAZHAM" (?) and is pasted on a cloth for drying under sun. The cloth is dipped into the breastmilk and squeezed into the eyes, twice or thrice daily morning and evening.

7. A decoction is prepared using MANJISHTA (*Rubia cordifolia*), DRAAKSHA (*Vitis vinifera*), LAAKSHA, (Shell lac), YASHTIMADHU (*Glycyrrhiza glabra?*), and rhizomes of NEELOTHPALAM () in equal quantity. The decoction is reduced to one third and a little quantity of Alum is mixed and filtered. This decoction is used as a wash in conjunctivitis.

8. In case of excessive heat, pain and irritation of the eyes, a decoction prepared with DAARUHARIDRA (*Berberis aristata*) and root of PUNDAREKA (Sugar cane variety) is dropped into the eyes frequently.

9. In case of reddishness and burning sensation of the eyes, a paste prepared with the root of APAAMAARGA () and SAINDHAVA (rock salt) warmed & mixed with curd is applied on eyelids.

10. In case of swelling in the eyes, 1 gm of Soda ash is put in an ounce of water for two hours. Filtered water is used as an eye drop for three days. Medication can be continued if swelling does not decrease.

11. Three grams of Soda ash mixed thoroughly with the white yolk is applied on eyelids and after sometime it is washed with the water which is boiled with CHINCHA (*Tamarind*) leaves. This process may be repeated for 10-15 times /day. Pain, red discolouration and itching of the eyes etc will disappear.

PRECAUTION:

The patient should not apply oil on his body or take bath during this illness. Whenever the eyes become reddish without any noticeable reason, they should avoid bath and application of oil on head. Otherwise this may aggravate the condition further.

CHAPTER VI

THIMIRAM (Cataract) AND ITS TREATMENTS

CATARACT (Thimiram) is a very common disease and passes through various stages of development resulting ultimately in loss of eye sight. The manner of its development and aggravation is detailed below.

1. VAATHA THIMIRAM (Vaathic cataract)

This has its origin in the condition of the stomach governed by the directional variation of the 'THRIDOSHAS'. This passes along the nerves and reaches the area of the pupil of the eyes and consequently it affects the first layer of the eye. As a result, the objects before the eyes gradually become dim. Appropriate treatment has to be taken at this stage. When the disease spreads to the second layer of the eye, objects which are met before the eyes are registered in the vision. The objects which are really before the eyes will be seen only on a very close look. The patient sees distant objects as near ones and near ones as distant objects.

If the application is restricted along the central region of the eyes, certain objects will be seen in circular forms, the colour being related to the that special dosha (vaatha pittha or kapha). He sees the objects as circular ones. If the affliction is in the centre of the eye, it will give rise to double vision. ie. one object will be seen as two. If the affliction takes on a diverse aspect, one object will look like several small images.

If the affliction is beneath the centre of the eyes, near objects will not be seen. If it is above, the distant objects will not be seen. All these are diagnostic features of cataract.

KAACHA

When the Vaathic cataract spreads to the third layer of the eye, it is called as KAACHA. At this stage patient sees outside objects as if they are covered with a transparent cloth. The objects below the eyes will not be seen. The pupil of eyes and the objects seen would then have the characteristic colour depending upon the particular, dosha ie. Vaatha Pittha & Kapha. The vision becomes progressively dim.

SYMPTOMS OF VAATHIC CATRACT

- Moving objects
- Dim vision, as if covered by smoke
- Pale red objects
- Seeing objects like floating webs, lair, mosquito etc, in front.

SYMPTOMS OF VAATHIC KAACHA

- Centre of the eyes become red
- Distortions in the appearance of pupil.
- Curved object may look like straight and vice versa.

VAATHI LINGA-NAASAM

If vaathic kaacha moves to the centre of the eye, it would look like dusty or smoky, redish. Over and above this, the pupil will either dialate or shrink. Slowly the vision may be lost. This is called as Vaathic linga-naasam.

Gambheera lakshna or Chronic stage symptoms of this disease develop, when Vaatha vitaitaes the nerves that supply the centre of the eye, the eye ball stands with drawn?. or deteriorate.

2. PITTHAJA- THIMIRAM (Pittha-catract)

Symptoms

- Seeing objects like lightning, sun rays or colourfull things
- Seeing changing colours as green, blue, yellowish red etc.

PITTHAJA KAACHAM

Symptoms

- Eyes assume the colour of opium
- Objects seen by the patient resemble opium colour
- May see the halo of the sun and the moon and rainbow.

PITTHAJA LINGA-NAASAM

Pitthaja kaacha worsens into Pitthaja linga naasam

Symptoms

- Centre of the eye changes into redish black
- The objects looked at, also take reddish yellow colour.

3. KAPHAJA THIMIRAM

Symptoms

- Objects may be seen as they are covered with conch shell.
- Whitish appearance of all the objects seen by the patient

KAPHAJA KAACHAM

Kapha thimiram worsens into Kapha kaacham

Symptoms

- Centre of the eye changes into white
- Objects may be visualised as whitish, diffused light of sun, moon lamp etc.

KAPHAJA LINGA-NAASAM

If Kaphaja kaacham is not treated, it will advance into Kaphaja linga naasam. The centre of the eye would move as a drop of water on a lotus leaf.

Symptoms

- Centre of the eye will shine as a pearl or whitish
- On account of heat the eye shrinks.
- If the eye lids are slightly rubbed with hands, closing the eye, the cataract will move.

4. RAKTAHJA THIMIRAM

Symptoms

- Objects will be seen as red in colour.

RAKTHAJA KAACHAM

If the rakthaja thimiram worsens into Raktha kaacham, the objects coming into vision of the patient would be red or black.

RAKTHAJA LINGA NAASAM

Symptoms

- Eye becomes red or black
- The centre parts of the eye may be lost in due course of time &
- Vision may be lost

MANAGEMENT OF THIMIRAM

PREVENTIVE MEASURES

It is advised to take the following items daily to prevent cataract. Old ghee, Thriphala, SATHAVARI (*Asparagus racemosus*), PATOLA (), AAMALAKE (*Phyllanthus emblica*), MUDGA (*Phaseolus mungo*) and YAVA.

As a food item, a Paayasa is prepared with Sathavari (*asparagus racemosus*) or Amalake or Yava with ghee and decoction of Thriphala is recommended.

Also follow :-

- a. Oil application on head daily before bath is beneficial.
- b. Avoid sleeplessness, mental worries and over strain
- c. Avoid watching fast moving objects, Minute objects etc.
- d. Wash your eyes with cold water on every evening.

Focussing to a long distance is the initial problem of the patient. Following treatments are advised to prevent further worsening of the condition.

1. A decoction of the AAMALAKE, HARETHAKE and VIBHEETHAKE is used as wash.
2. Above mentioned drugs are made into a powder and taken internally with same quantity of YASHTIMADHU powder and ghee.
3. Apply oil on the foot, plantar aspects of the foot, toes etc.
4. Take cow's ghee at bed time.
5. Pepper put it in curd for 24 hours is made into a paste and applied to the eyes.
6. Include Milk, ghee etc in daily diet.
7. AAMALAKE, HARETHAKE, VIBHETHAKE and YASHTIMADHU are mixed with coconut water and reduced to 1/8th and filtered. The solution is reduced to a paste form and applied to the eyes with honey.

Thimiram can be prevented by the abidance of these advices and on onset it can be effectively arrested.

SPECIAL TREATMENT OF KAPHAJA THIMIRAM

- Pepper seeds kept in curd for 24 hours are made into a paste with the same curd and applied lightly inside the eyes.
- Pepper made into a paste with curd is applied on a cloth (as mentioned above) and tied over the eyes while sleeping at night. This will prevent further worsening of the case.
- MAAKSHIKA is ground with molasses and applied into the eyes.

CHAPTER VII

NIGHT BLINDNESS

CAUSE AND MANIFESTATION

Due to the vitiation of Kapha in all three layers of the eyes patient gets night blindness. During the day time Kapha vitiation decreases and patient is able to see.

TREATMENT

1. A paste is prepared with the seeds of KARANJA (pongamia glabra), flower juice of PLAASA (), and flower stalk of Padma (Nelumbium speciosum) ground in cowdung water. This paste is applied to the eyes twice or thrice daily.
2. A mixture is made with the liver of Udumbu (), PIPPALI (small variety), eggs of fish, and leaves of MAARKAVA (eclipta alba). This is eaten twice or thrice daily.
3. Shark liver fried in ghee is taken internally for 7 days.
4. Leaf juice of "VENAPPACHHA()" is applied to the eyes.
5. Fat of sheap, deer or eggs of fish is beneficial.

Medicines which are decreasing Kapha pittha can be generally prescribed for Night blindness.

CHAPTER VIII

EYE INJURIES

One of the major causes of loss of eye sight is injuries to eyes. These are of different kinds. Some injuries to the eyes occur without our being aware of them, such as the sting of the of the fly, flying particles of air, wind and dustborn moles and so on. These objects cause laceration on the black of the eye and the wounds are likely to be aggravated when the patient rubs his eyes in discomfort. Sometimes such injuries worsen into suppurating wounds accompanied by great pain, pus and reddening of the eyes. If this type of injuries are treated immediately on the onset, there will be no danger to the eyes. If the treatment is delayed beyond two days the intial laceration become festering wounds and the cornea develops a white patch. This will be followed by pus and unbearable pain. The patient arrives at this condition only because of his indifference.

TREATMENT OF EYE INJURIES

Jeeraka (cumin seeds) and Bhoomi aamalaki (phyllanthus emblican) should be mixed and ground in breastmilk. The solution should be filtered out and wash the eyes with it for three days in the morning and evening. Again the eyelids should be smeared with a mixture of ghee and honey. During these days, the patient should avoid bathing and use of oil at least for three days.

If the injuries are severe caused by hard strokes or thrusts into the eyes, the following treatment is done at once. Take tender leaves of DOORVA () and roast it with ghee and wash the eyes with it, two or three times a day. In addition to it the juice of plant must be squeezed out and few drops are applied to the eyes.

YASHTIMADHU root, Tubers of NELOTHPALAM, JĒEVAKAM and IDAVAKAM are used to prepare a ghee. Few drops of the filtered ghee is dropped into the eyes for any kind of structural damages caused by trauma.

In case of trauma and pain, HARIDRA (Curcuma longa), MUSTHA (Cyperus rotundus), AAMALAKE (Phyllanthus emblica), HARETHAKE (Terminalia chebula)VIBHETHAKE (Terminalia belerica), DAARUHARI-DRA (Berberis aristata), YASHTIMADHU (Glycyrriza glabra) and sugar are pound with goats milk or (breast milk) and filtered into a clean vessal. This is poured slowly into the eyes four or five times daily.

TREATMENT OF THE EYES WHEN FOREIGN OBJECTS INVADE IT

The eyes are prone to affliction with foreign bodies. Treatment in such cases will depend upon the nature of the objects fallen into the eyes, and the damage done by them.

TREATMENT FOR ALKALY POISONING

Wash the eyes in clean water till every trace of the substance is removed from the eyes. Wipe the eyes with clean cloth and wash the eyes again with coconut toddy twice or thrice daily. When burning sensation in the eyes ceases 4-5 drops of purified () should be put in the eyes. This should be done for three days in succession.

Alternatively following treatment also may be adopted.

Wash the eyes with clean and pure water. Covering of the tender arecanut fruits are squeezed and fresh juice is made. Three or four drops of this prepared juice is poured into the eyes for three days.

TREATMENT FOR ACID POISONING

Wash the eyes with clean cold water.

Camphor made into a paste with honey and butter is applied into the eyes. The honey alone may be applied for three days for three consecutive days.

TREATMENT FOR BURNS IN THE EYES

Wash the eyes with honey, not to wash with water.

A ghee prepared with DOORVA () in cow's ghee is applied externally to the eyes for 3-4 days.

TREATMENT FOR FLIES (WHIP STINGES?) IN THE EYES

A juice prepared with red onion (*allium cepa*) and sugar is dropped into the eyes in 3-4 drops. (on the afflicted eye).

TREATMENT FOR INSECTES IN THE EYES

Eye is washed with flowing water.

Remove the foreign bodies by gentle touch using finger tips or piece of hair over sclera.

A ghee prepared with the root bark of "veluparutthi" in cow's ghee is applied into the eyes for three days.

TREATMENT FOR METAL DUSTS/PARTICLES IN THE EYES

A needle made up of magnet is shown to the eyes and thus the dust may be attracted by the magnet from the eye.

A ghee prepared with DOORVA is applied to the eyes for three days.

If proper treatment is not adopted, these small wounds may develop into infection and may cause complete destruction of the eyes.

CHAPTER IX

ULCERS ON EYELIDS

The ulcers on the eyelids are mainly manifested due to excess heat of the body, due to the vitiation of pittha and raktha.

When the highly aggravated doshas individually or collectively appear in the channels of the eyelids, they cause an increase in 'MAMSA' as well as RAKTHA and quickly produce diseases of the eyelids. These diseases may be treated with the following medicines.

1. Apply "THUVARAKA" () oil on the inner eyelids for 3 days both at morning and evening.
2. Mix 2gms of copper sulphate in an ounce of Marotti oil with 1gm SIGRU leaf juice (Moringa olifera) and boil. Filtered and cooled oil is dropped into to the inner eyelids.
3. Put some flowers of NANDIYARVATTAM () in clear water in the evening. In the next morning remove the flowers from the water and put an equal number of flowers again into it. On the third day flowers are removed and the water is filtered out. Eyes are washed twice or thrice daily with this water. This will stop exudation of pus and itching of the eyes.
4. Cut one HARETHAKE (terminalia chebula) longitudinally and mix it with JERAKA (Cuminam cyminum) paste of CHANDAN (Santalum album) and butter. Wrap the mixture with the leaves of AMRUTHA (tinospora codifolia) and tie with DOORVA leaves. Boil this in the milk with equal quantity of water and reduce to one fourth. The mixture is taken out and pound with the same milk and kept in a clean vessel. The paste is applied into the eyes in cases of ulcers on eyelids.

5. A decoction is prepared with AAMALAKE, HARETHAKE, VIBHETHAKE, SIGRU (bark), CHANDANA, LAAKSHA, DRAAKSHA (dried) in 1500 ml of water and reduced into 600 ml.

Take 100 ml of it, filter it and again boil down to half. Add 10 gms of sugar into it. This should be folded up in a clean piece of cloth and the contents squeezed into the eyes as a wash. This is to be done in morning and evening till the quantity of decoction prepared is used up.

CHAPTER X

OTHER DISSORDERS OF EYE & ITS TREATMENT

1. WHEN EYES ARE BULGED :

- Bark of SIGRU (*moringa olifera*) made into a paste with water is applied on a cloth and bandage is done over the eyes.

2. INSECT BITE (Wasp sting):

- The sting is removed and juice of the red onion is used for washing the eyes.

3. REDDISH APPEARANCE OF THE EYES :/ RAKTHA KOPAM

- BHOOMI-AAMALAKI (*Phyllanthus nirroori*) and JERAKA (*cuminum cyminum*) are ground in breastmilk and squeezed through a cloth into the eyes.

4. WATERING EYES :

- Bark of the NANDIYARVATTAM () is crushed and put in to water for 12 hours. Water is used as a wash or as an eye drop.
- Thick juice of the AAMALAKE fruit is boiled and reduced into a thread like form. This is applied to the watering eyes.

5. ITCHING OF THE EYES:

- Two drops THUVARAKA oil is applied to the eyes
- A paste made with pepper in butter milk is applied externally to the eye lids.
- A decoction made with AMRUTHA (*Tinospora cordifolia*) leaves, AAMALAKE (*phyllanthus emblica*) leaves and JEERAKA (*cuminum cyminum*) with equal quantities of milk is poured to the eyes.

6. EXCESSIVE DROWSINESS:

- Longitudinally cut part of the red onion is kept on the eyelids.

7. FALLING OF EYELASHES:

Mix 1 gram of camphor, 1 gram of pepper and 4 grams of ANJANA (black stone?), grind them and keep it in a small bottle. Take a splinter, dip it in MAROTTI oil and dip it into the bottle containing the medicine. Introduce the splinter lengthwise across the eyes between the eyelids and slowly draw out the splinter from one side. This operation will ensure that the medicine applied fully sticks to the eyelids. This is very beneficial in case of falling of eyelashes.

8. SWELLING AND REDDISHNESS OF THE EYES :

The buds of PAARIBHADRA (MURIKKU) (), is ground with rock salt and 3-4 drops of filtered juice are put to the eyes.

9. BURNING SENSATION OF THE EYES :

A paste is prepared with BHOOMI-AAMALAKE (*phyllanthus nirori*) and red onion is squeezed through a cloth. 2-3 drops are dropped into each eye for 3 days.

CHAPTER XI

MEDICINAL PLANTS USEFUL IN NETRA ROGAS

Generally the medicinal plants which are used in the treatment of eye diseases are of "Pittha-hara" properties, because Pitha vitiation is a major causative factor for the onset of eye diseases.

Some important single drugs and its uses are given below for identification and use.

1. HARETHAKE (*Terminalia chebula*)

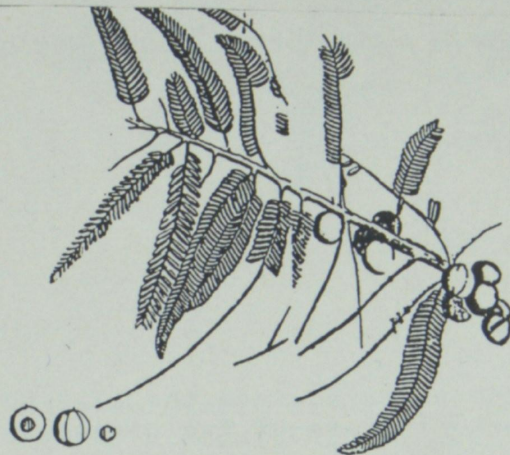
Major parts used :- Fruits

There are 7 varieties of Harethake are found. Among them the one with five segments is known as "Abhaya" and it is recommended for Eye diseases. A good quality Harethake will sink fast in water.



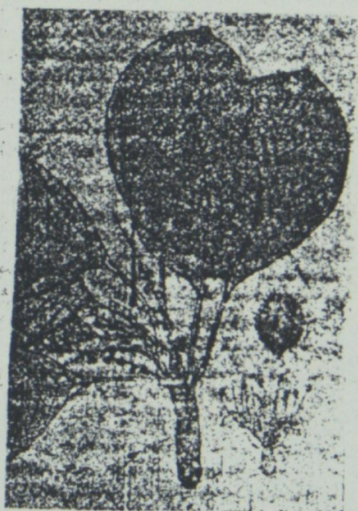
2. AAMALAKE (Phyllanthus emblica)

Major parts used: Fruits



3. VIBHETHAKE (Terminalia belerica)

Major parts used : Fruits



The combination of above mentioned 3 drugs are known as " THRIPHALA ". This mixture is used widely as a preventive, and curative medicine in eye diseases.

4. ERANDAM (swetha), (*Racinus communis?*), white variety

Major parts used : Leaf buds, Roots



a. Juice prepared from the leaf buds are dropped into the eyes with honey in case of Eye diseases due to Vaatha vitiation.

b. A decoction made with the roots of KANTAKAARI and VAASA (*adhathoda vasica*) and roots of ERANDA in equal parts is given in eye diseases due to vaatha vitiation.

5. LODHRAM ()

Major parts used: Bark, leaves, flowers.



a. Leaf juice of Lodhram, eranda are put into the eyes with honey in case of diaseses due to pittha vitiation.

b. Bark of Lodhram boiled with milk is poured into the eyes in similar cases.

e. Flower juice of the Lodhram is applied to the eyes in case of conjunctivitis.

6. SIGRU (*Moringa olifera*)

Major parts used: Bark, Buds,



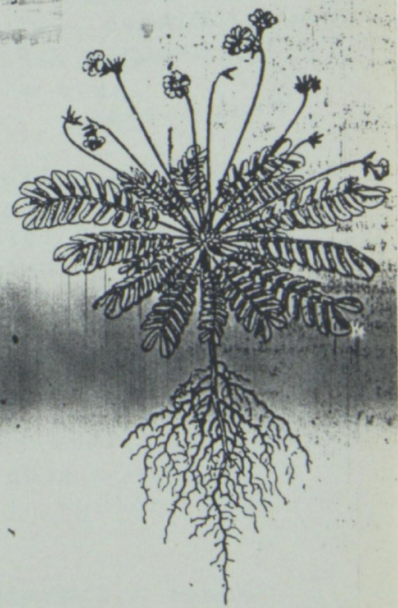
a. Fresh juice of SIGRU leaf buds and cow's milk mixed with honey is dropped into the eye in 1-3 drops for 3 days. This is use ful in bloody eyes.

b. A paste of SIGRU bark with GAIRIKA (red soil) applied on a cloth is tied to the big toes (of opposite side) in case of pus formation and inflammation in the eyes.

c. Dried seeds of SIGRU ground with breast milk is applied to the eyes with honey in case of pus formation in the eyes. (Severe burning sensation will be there while applying)

7. SAMANGA (*Bayophittum sensitivum*)

Major parts used: whole plant



a. Fresh juice of SAMANGA and Rocksalt filtered into the eyes is beneficial in Pitha/ Raktha vitiated diseases.

CHAPTER XII
WHOLESOME FOOD FOR THE EYES

The balance of " VAATHA PITTHA and KAPHA " resultus a healthy body. In this, the composition of eyes are mainly of Pittha nature and any food substances which increase pittha in the body will affect the normal function of our eyes.

Vegetables

1. Jevanthi
2. Sunishannakam
3. Thanduleyakam
4. Vasthukam
5. Moolakam
6. Patolam
7. Karkolakam
8. Kaaravellam
9. Vaarthaaki
10. Tharkaari
11. Sigru fruits/flowers/leaves
12. Cucumber leaves
13. Sooranam
14. Bimbam
15. Lasunam / Palandu

Meat items

27. Mutton , liver
28. Egg, Fish eggs
29. Flesh of tortoise
30. Flesh of birds.
31. Shark

Others

36. Honey
37. Food items cooked with ghee

Seeds

17. Peas
18. Beans
19. Wheat
20. Rice
21. Black maze
22. Barley

Milk items

23. Breast milk
23. Goat's milk
24. Cow's milk
25. Ghee
26. Butter

Fruits

32. Grapes
33. Gooseberries
34. Banana
35. Lemon

CHAPTER XIII

COMPOUND FORMULARIES USEFUL IN NETRA ROGAS

1. NETRA BHASMA

Alum is fried on a mud vessel and when it becomes into white powder on boiling it is ground and kept in glass vessel.

Indications: Wounds in the eyes, Solution made with with the BHASMA is used for reddishness and burning sensation of the eyes.

2. THRIHALAADI CHOORNA

A powder is prepared with the fruits of

AAAMALAKE - 4 parts
HARETHAKE - 1 part
VIBHETHAKE - 2 parts

Used internally and externally with honey and ghee in cases of burning sensation, itching, cataract and trauma of the eyes.

3. KARPOORAADI RASAKRIYA

KARPOORA (camphor)	SAINDHAVAM (rock salt)
VARAHA (small shell)	THUTHAM (copper sulphate)
SPATIKA	PEETHAM
MARICHAM (pepper)	SANKHA (conch)
DAARUHARIDRA (berberis aristata)	PIPPALI (piper longum)
MAAKSHIKAM (copper pirate)	GAIKAM (red soil)
ANJANAM ()	SAMUDRA-PHENAM ()

All these medicines are taken and powdered in equal quantity except piper longum. This powder is again ground in water and honey for 3 days.

Used externally with milk, water or honey in Cataract, arman (pterigium), itching of the eye and conjunctivitis.

4. THUVARAKA THAILAM

THUVARAKA OIL - 225 ml
THUTTHAM (CUSO4) - 25 gms
SIGRU - 120 ml leaf juice

THUTTHAM is kept in THUVARAKA oil for one day and in the next day the oil is boiled with leaf juice of SIGRU and reduced. This is used externally in itching of the eye, falling of eye lashes, corneal ulcers and conjunctivitis.

5. THARPPANA GRUTHAM

DOORVA
GOJIHWA
NADIYARVATTAM (flowers)
JEVANTHI
BLACK PALM (leaf juice in 330 ml each)

Milk double the quantity
Ghee double the quantity of milk

For paste:- YASHTIMADHU, DAARVI, RAKTHA CHANDANAM, CHANDANAM, PAARANHI (flowers), LAAKSHA, KSHERIVRUKSHA each 3 grams.

All above mentioned drugs are mixed and ghee is prepared.

This is used for tharppana (continuous pouring of the medicine over the eyes for 30-45 mts) in cases of corneal opacity, corneal ulcer, blood born diseases of the eye, cataract and glaucoma.