

COMMON EYE PROBLEMS IN TROPICS

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Most of the diseases are similar all over the world, but certain diseases are more common in tropical countries in respect to temperate climate possibly due to some climatic factors, mental attitude and illiteracy. Generally speaking people in the tropics have darker skin dark brown iris and the most pigmented choroid reflects less light for funduscopy. Pupils in the heavily pigmented dark brown iris is smaller and does not react to light so easily and tends to dilate less and slowly due to thicker hypertropic and highly pigmented iris. Presbyopia also seems to develop earlier in tropics and the average people develop senile cataracts in the early sixties which is not so in colder climates. In oriental eyes, the filtration angle seems to block more readily after glaucoma operations and the eyes seem to stand greater rise of intraocular tension without much ill effects.

People in Nepal are poor. Majority of them do come to the hospital very late when the disease is in already advanced stage due to ignorance, illiteracy, poverty, and many a times monsoon blocking the roads and the social custom or rather their mental attitude of going to 'Dhami-Jhankri' (people who believe in spirits and spiritual things) having Kaviraj (old Ayurvedic medicines) who are less expensive and are locally available.

It is also difficult to have the proper history from a patient and to plot the peripheral and central fields in glaucoma or in any neurological diseases. Many patients who come with the eye complains do not tell the past history of other illnesses which are very relevant like joint involvements, genital discharges, pulmonary tuberculosis and the past history of syphilis or even the important present illness like diabetes mellitus, hypertension, nephritis, endocrine disturbances etc, which they are suffering because they feel it has got nothing to do with the eyes. Many a times if they have complains in one eye they let you to examine that particular eye and not to touch the other eye which they believe is their perfect eye. Majority of the patients are less disciplined and stop the treatment as soon as they are better and hardly carry out the full course of medicine and if they are no better usually blame for their bad luck

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rather than the doctors. If they die in the hospital after surgery they feel that the doctor killed them.

The incidence of Amblyopia (a lazy eye) with Squint seems to be very high in Nepal due to the ignorance of the parents and the less availability of the trained eye specialists. The parent do not consult the doctors regarding their children's eyes at their earlier age when it is possible to correct easily and to give binocular vision. I have noticed even some qualified foreign graduate medical doctor feels that the Squint in the right eye of his son is a lucky one and does not like to be operated or treated. The incidence of macular degeneration or involvement due to central serous retinopathy, Eclipse burn or some idiopathic cause is very high in Nepal which needs further research and investigations.

Possibly due to heat, dusty atmosphere and the lack of hygiene, the incidence of trachoma seems to be rather high in tropical countries and in Nepal it is more common in the Terai belt and in the people who have lived or visited India for a while. It seems to be less common in Kathmandu's local dwellers "Jyapu" community who hardly leave the valley and the hilly people who have never visited the low Terai lands or India. In my experience it is less common in the hills above the height of 4-5000 ft. high.

Traumatic injury both blunt penetrating wounds are common in Nepal and so far I have not seen a single case of Sympathetic Ophthalmitis but several cases of panophthalmitis. Corneal ulcers after a scratch by the leaves of paddy corn is common. I have seen even farmers losing their eyes because of it. Here I would like to classify some of the common tropical diseases which can involve the eye and deal with a few of them which are more common in Nepal in my short experience of 1 year at Bir Hospital and various Eye camps held at 'Dolkha', 'Doti' and 'Lalitpur'.

Classification of tropical diseases which commonly involve eyes

I. Bacterial:-

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| 1. Tuberculosis. | 2. Syphilis. | 3. Leprosy. |
| 4. Cholera. | 5. Bacillary dysentery. | |

II. Rubella & other virus diseases:-

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| 1. Smallpox. | 2. Measles. | 3. Chicken Pox. |
| 4. Herpes Zoster. | 5. Herpes Simplex. | 6. Mumps. |

III. Parasites:-

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| 1. Toxoplasmosis. | 2. Amoebiasis. | 3. Loa Loa. |
| 4. Malaria. | 5. Leishmaniasis. | 6. Trypanosomiasis. |
| 7. Schistosomiasis. | 8. Yaws. | 9. Onchocerciasis. |
| & 10. Bancroftian filariasis. | | |

IV. Malnutrition:-

Cornea in Kwaishorker; Keratomalacia (Vit A defi.)

V. Tropical Blindness:-

1. Nutritional Difficiencies:
2. Eclipse Burn.

VI. Eye Complications after couching.

VII. Bites and stings of insects, arthropods, mosquitos, flies, caterpillars, leeches, spider scorpions etc of the lid.

VIII. Rhinosperidium Seeberi causing conjunctival polyp.

About two decades back one of the common ocular problem in Nepal was the eye involvements by smallpox. Blindness in the western world is due to glaucoma, diabetes, optic atrophy, uveitis, retinal detachment and Eales disease but the majority of people are blind in Nepal due to corneal opacity after smallpox, phthisis bulbi after injury; keratomalacia and the cataract; and the majority of them could be helped by corneal -- grafting and lens extractions. There are many poor helpless blind people in Nepal who are blind in both their eyes by smallpox in the form of complete corneal opacity and few with Phthisis bulbi after corneal perforation. Thanks to the Public Health Department and the modern living and education that the smallpox is gradually vanishing in most parts of Nepal.

Cutaneous eruption of the lids and catarrhal types of conjunctivitis pustules with secondary infections may extend to the cornea leading to hypopyon ulcer. In neglected cases, the cornea may perforate leading to Phthisis bulbi.

Eclipse burn of macular region leading to poor sight in one eye also seems to be fairly common in Kathmandu valley and outside Nepal. They are usually detected in the school and colleges where they have refractive errors and are unable to read the letters in the blackboard and has to go to the eye surgeon for glasses. Sometimes they are detected when the individual wants to enter the government jobs and comes for routine eye check up or sometimes by the specialist in their private clinic, when the patient is still unaware of his poor vision. I have seen at least more than 100 cases of Eclipse burn within 1 year. Most of them were adult males and very few females. If there is amblyopia or a Squint or if the vision can not be improved by glasses one must exclude the eclipse burn involving the macular or paramacular region by carefully funduscopy after dilating both the pupils by Homeatropic (2%), or Mydrilate. Vitamin deficiency is very common in Nepal but the classical optic atrophy due to nutritional deficiency does not seem to be that common in my experience.

Macular involvement due to old patch of choroiditis also seem fairly common in Nepal but we have not carried out any complete survey in this field. Amoebiasis, Toxoplasmosis, bacillary dysentery, tuberculosis and syphilis are still common in Nepal and produce various fundus changes. Filariasis is specially common in Kathmandu valley and so far I have --

detected only one worm in the A. C. of one patient -- an ocular thread worm.

Leprosy is fairly common in Kathmandu valley and outside Nepal and I feel one can hardly see elsewhere such an advanced cases involving both the eyes with complete blindness. Both tuberculoid and lepromatous type are common. Lagophthalmos due to involvement of the nerve supply of orbicularis muscle commonly causes drying of the cornea with exposure keratitis later leading to scarring of the cornea and loss of vision. Secondary infection may lead to Hypopyon ulcer, panophthalmitis, secondary glaucoma, iris prolapse and phthisis bulbi. Falling of eye lashes with tuberculoid patch on the skin of the eye lid is also seen.

The common picture which is more often seen is the actual infiltration by the leprosy bacilli into the tissues of the globe. Early picture of superficial Punctate keratitis, episcleritis or mild iritis is less often seen. I have often seen the advanced case of granulomatous iridocyclitis and the dark brown nodules as big as the sago grain involving the whole of the iris in which one can easily see by naked eyes with proper illuminations. Some time one can see the nodules filling the whole of A. C, with large mutton fat K. P. on the posterior surface of the cornea but the eye is still quite with no ciliary congestions. Many patients are blind both their eyes due to complicated cataract secondary to uveitis.

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COMMON EYE

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