



COMPLICATIONS RELATED TO NATIVE PRACTICES FOR REMOVAL OF OCULAR SURFACE FOREIGN BODIES IN RURAL AREA IN TERTIARY CARE CENTRE BALLARI

Ophthalmology

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ABSTRACT

Purpose: To determine various complications and reasons for usage of native medicines for removal of ocular surface FB among patients attending tertiary care Centre

Method: cross-sectional study of patients with history of use of native practices for ocular surface FB, who presented to ophthal OPD (march'16-17) was carried out.

Information was obtained from patients and data analyzed using frequencies and percentages.

Result: out of 60, Infiltrate:48.33%, requiring keratoplasty 20%, conjunctivitis:20%, remnant foreign body:31.67%. various methods used to remove foreign body were, pipes(25%), tongue(21.67%), oil(11.66%), herbal extract(10%), butter(10%), note(6.70%), cotton(6.67%), breast milk(3.30%), canal water(3.33%). M::F(1.4:1). Mean age:35yrs. Reason was unaffordability, illiteracy, proximity and belief in potency.

Conclusion: eye health education with emphasis on safe eye care practices, decreases the complications & to provide a more sustainable health care structure in the community.

KEYWORDS

Complications, Ocular Surface Foreign Body, Keratoplasty, Native Practices, Eye Health Education

Infectious keratitis contributes significantly to ocular morbidity and corneal blindness, especially in developing nations^[1,2]. In India, corneal blindness is the leading cause of blindness after cataract^[3].

Traditional eye medicines are biologically derived therapies that are usually dried parts of various plants that are rendered soluble in an aqueous medium. They can also be of animal or human origin and include breast milk, saliva and urine^[4,5].

Different countries use traditional eye medicines and the products used vary from healer to healer and from country to country^[6]. India is considered with the world's 12th richest biodiversity, traditional and cultural system in respect to medicinal plants^[7]. The perception of supernatural forces as the cause of blindness has also been documented as a barrier to the use of orthodox medications. No particular attention is paid to the mode of action (antibiotic/steroid), concentration, and sterility as most of these concoctions (plant/animal extract mixture) are made without regard for hygiene including using contaminated water, saliva, local gin, and even urine^[8,9].

The indiscriminate use of traditional eye medicines (TEM) in developing countries including India is responsible for increased occurrence of corneal infections and ulcerations in these regions^[10]. This study was done to determine various complications and reasons for usage of native medicines for removal of ocular surface FB among patients attending tertiary care Centre

MATERIALS AND METHODS:

The patients coming to department of ophthalmology OPD VIMS Medical College, Ballari, were taken for the study. The study was done over a period of 1 year. As per guidelines laid down by Declaration of Helsinki, written informed consent for enrolment, ophthalmic examination and questionnaire administration was taken from all eligible adults. Approval of the local ethical committee was taken before start of the study.

Patients demographics such as sex, age, occupation, and urban or rural residence were recorded. Symptoms necessitating the use of TEM, type of TEM, complications, presenting visual acuity were documented. Visual acuity was recorded in terms of snellen notation. Pen torch examination and slit lamp bio-microscopy was performed to detect corneal lesions. Corneal scrapings were sent for gram's staining and KOH mount, culture sensitivity tests were performed where required. Systemic and local treatment was given.

Statistical analysis:

All the data were recorded and analyzed by percentage analysis.

RESULTS:

A total of 60 patients reported to the ophthalmology department over a period of 1 year. The patients were reported to have used TEM for ocular surface foreign body removal.

Demographic characteristics of the study population

chart 1: Out of 60 patients, 32 (52%) were males and 28 (48%) were females, corresponding to M:F ratio of 1.4:1. Mean age was 35yrs, all patients were from rural background. Most of them were (table 2) farmer by occupation, followed by house wife, coolie, student, business men, unemployed, clerk, welders and tailors.

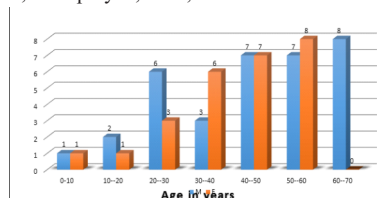


chart no 1: Age-wise distribution

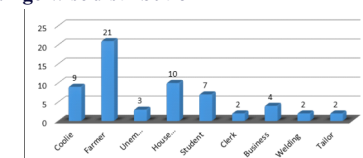


chart no 2: Occupation-wise distribution

Source of TEM-related information and barriers

TEM was recommended by relative in 22(36.7%), self 21(35%) and friend 17(28.3%). Reason was unaffordability and proximity (48%) others were often benefited, others benefited, and belief in potency (chart no 3)

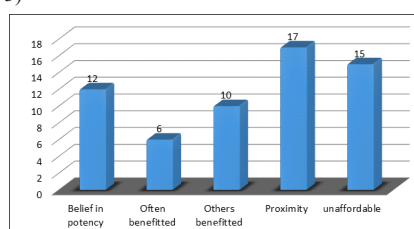


chart no 3: Reasons for seeking TEM Use of traditional eye medicine

various methods used to remove foreign body were, pipes(25%), tongue(21.67%), oil(11.66%), herbal extract(10%), butter(10%), note(6.70%), cotton(6.67%), breast milk(3.30%), canal water(3.33%). (chart no 4).

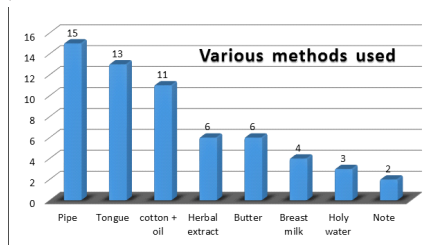


chart no 4: Various Methods used to remove foreign body

History and comprehensive eye examination

Most of the patients reported to OPD within 1-3 days (46), 4-6days (10), 7-10 days (4) (chart no 5). Symptoms at the time of presentation was pricking 23, pain 20, diminution in vision 11, ulcer 5, and redness 1. Vision at the time of reporting were in range of 6/6-6/12 in 19 patients (31.6%), 6/18-6/36 in 24(40%), <6/60 in 17(28.3%) (chart no 6). On examination under slit lamp biomicroscopy infiltrates was found in 29(48.33%), remnant foreign body 19(31.67%), and conjunctivitis 12(20%) (chart no 7).

Among 29 cases (48%) of Infiltrate, Scrapping was performed in 23 cases (38%) and results being

GPC=56.5% Fungal=26% GNB=8.7% No org=8.7%.(Table no 8)

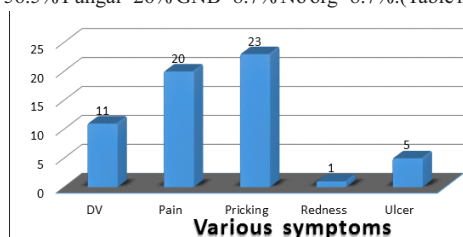


chart no 5: Various Symptoms at Presentation

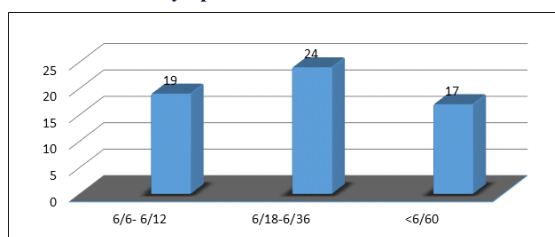


chart no 6: Visual Acuity at Presentation

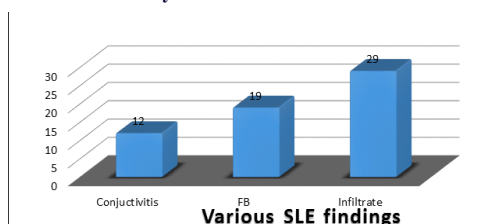


chart no 6: Slit lamp findings at Presentation

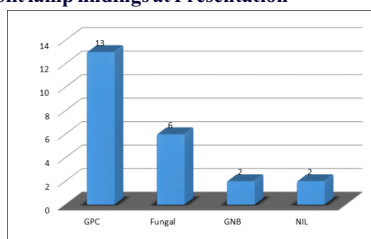


chart no 7: Organism grown on Culture

Discussion:

TEM use, either as sole first-line treatment or as an adjunct used concurrently with conventional therapy, has been associated with poor visual outcome of otherwise treatable eye diseases in clinical ophthalmic practice. TEM-related poor ophthalmic outcomes have been attributed to delay in seeking eye care services, damage to ocular and/or adnexal structures from TEM toxicity, and microbial contamination of TEM agent or procedure [11,12].

To the best of our knowledge, there has been no institution-based evaluation of the use of traditional eye medicines in north karnataka. Our study highlights that usage of various traditional medicines is still prevalent in rural Indian population.

Traditional eye medicine was commonly used in this rural population in the form of 'pipe, tongue and cotton+oil.

Likewise, a hospital-based study from Sao Paulo, Brazil reported use of homemade, traditional products like boric acid, normal saline and herbal infusions for ophthalmic emergencies [13]. It is also important to note that TEM was being applied more frequently by people who sustained ocular trauma in our study population, hence there is a need to create awareness and impart health education amongst the people about primary eye care and early referral of such cases.

The commonest sources of TEM related information in this study population were villagers themselves that included neighbors, relatives and traditional healers. People residing in villages and rural parts of the developing world, usually tend to consult local healers or elders of the community in the event of an ocular disease as they believe that diseases are caused by violating traditional societal rules [14]. Hence, large-scale efforts at public education need to be evolved and implemented through ground-level health care volunteers and local community participation.

Conclusion:

This study shows that many of other patients still use TEM for treatment of various systemic diseases. There is a need to establish trust and respect among patients, healthcare providers, and the communities. Primary eye care workers have a very important role to play in the prevention of blindness from TEM. Eye health education with emphasis on safe eye care practices, decreases the complications & to provide a more sustainable health care structure in the community

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