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ROLE OF OUTREACH EYE CAMP IN REDUCING OCULAR MORBIDITY IN RURAL AREA-A STUDY FROM JAMMU, J&K, NORTH INDIA.

Ophthalmology

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ABSTRACT

Background: In the world the most common cause of treatable blindness is cataract. About 50-70% of preventable blindness in the year 2000 in India was due to senile cataract. Thus, to decrease the disease burden of the country, improvement in the health of common man is must. Outreach camps help to detect cataract, glaucoma etc provides affordable treatment & thus the unrecognized rural and poor population is benefited.

Materials & Methods: The present study was conducted to see ocular morbidity in patients attending eye camp in rural area of Jammu. A complete eye examination was done in all including color vision, refraction, Schiotz tonometry, direct funduscopy. The patient requiring surgery for visual morbidity like cataract were taken up at GMC Jammu & operated by ECCE+PC-IOL implantation.

Results: A total of 163 eye patients were examined out of which 52.15% were females. Uncorrected refractive error (61.35%) in middle aged was most common ocular morbidity followed by cataract (15.95%) in elderly.

Conclusion: Cataract is the most common treatable cause of blindness in elderly population in rural areas. Early detection of diseases such as cataract & glaucoma in this population will reduce the burden of blindness. Hence, in decreasing the visual morbidity due to cataract in rural areas conducting of outreach camps forms an integral part.

KEYWORDS

Camp, Cataract, Rural population, uncorrected refractive error.

Introduction:

The most common cause of treatable blindness is cataract.[1] Blindness has an enormous personal, social and economic impact & has a significant weight on family, community, social & health service.[2] The population which does not seek medical aid due to various reasons need to be recognized. To diagnose and treat cataract in rural areas well organized outreach camps are necessary as per studies.[1] The term 'outreach' refers to a wide range of strategies and approaches aimed at providing services to individuals with minimal or no access to the clinic. Outreach program is primarily targeted at poor, illiterate or ignorant rural population who have limited access to eye care services.[3] The modern day outreach camps have the facility to perform cataract surgeries in an operation theatre with aseptic precautions by bringing patients to a higher centre. This is in contrast to older eye camps where aphakic spectacle correction was provided after performing surgery at camp site. Also facilities like phacoemu sification with foldable IOLs are provided to the patients. This set up is advantageous in recognizing the patients with cataract and also dealing with other associated ocular or systemic problems, if any.[1] This study aims to highlight the role of outreach camps to know about the pattern of ocular morbidity in area & also early management of diseases such as cataract & glaucoma in this population will reduce the burden of blindness.

Material and method:

The present study involved 163 patients who attended eye camp in rural area of Jammu for eye check-up. Informed consent from all patients were taken prior to conduct of study. All participants were worked out as:

1. Diffuse Torch light Examination: Examination of the eyelid margins, conjunctiva, the cornea and anterior segment of the eye was performed. Strabismus was diagnosed by recording the corneal light reflex combined with cover-uncover test.
2. Visual acuity: Both near & distant vision was estimated.
3. Colour vision with ishiara chart.
4. Fundus examination using Welch Allyn direct ophthalmoscope in undialated pupil to see posterior segment of the eyes in dark room.
5. Schiotz tonometry: to measure IOP.

Patients having chalazion, pterygium, cataract etc were taken up at GMC Jammu for further management. Cataract had been treated by extracapsular cataract extraction with posterior chamber intraocular lens implantation (ECCE+ PC-IOL) surgery. All the surgeries were performed free of cost & post-operatively antibiotic-steroid drops, lubricants, oral antibiotics & anti-inflammatory drugs were provided all patients. After surgery, eye bandage removed on next day, patients were kept for 2 days under observation and were discharged with medications after evaluation of the eyes. Post-op precautions & warning symptoms-signs were demonstrated to every patient at the time of discharge from hospital. Visual acuity was estimated in all patients 6 weeks post-operatively, spectacle correction was given wherever required.

Statistical Analysis: Analysis of data was done using statistical software MS Excel / SPSS version 17.0 for windows. Data presented as percentage (%) as discussed appropriate for quantitative and qualitative variables.

Observation & Results:

In the present study, following observations were made;

Maximum patients were in age group of 40-50 years i.e. 32.51% followed by 29.45% in 50-60 years. (Table no.1)

Females comprised 52.15% while males were 47.85% in the present study. (Table no. 2.)

The most common ocular morbidity seen was uncorrected refractive error 61.35% followed by cataract 15.95%. (Table no. 3)

Discussion:

An outreach camp is organized with the help of local primary and community health centres where patients are educated about the need for eye examination and cataract surgery, which can improve their quality of life.[1] In rural areas more than 3/4th of Indian populations live, these areas are away from medical facilities, thus to increase service for transportation community based interventions are required , eye care services need to be planned & executed in these areas. An

essential strategy for such diverse, dependent and an ignorant population is screening through outreach programmes, transportation to higher centre for surgeries.[3] In the present study the ophthalmic unit consisted of an ophthalmologist, refractionist and an organizer who was familiar with the location of the camp. Patients with cataract, pterygium etc were identified and brought to the tertiary care centre where surgery was performed by eye surgeons.

In the present study, all the patients were from rural population. This is due to reason that camp was organized in a village which was about 44kms away from Jammu.

Maximum patients were in age group of 40-50 years i.e. 32.51% followed by 29.45% in 50-60 years.

Females comprised 52.15% while males were 47.85% in the present study. This is due to reason that female population less commonly present to hospital for their reduced vision but as the camp was organised near by area so they access easily to seek medical help without being dependent on their spouses or family members.

The most common ocular morbidity seen was uncorrected refractive error 61.35% which was corrected by refraction & providing glasses followed by cataract 15.95% which had been operated at tertiary care centre. The uncorrected refractive error mainly for near vision (hypermetropia+presbyopia) seen in present study was in middle aged while cataract was seen in elderly population. A report by Vivekananda Mission Ashram in West Bengal based on outreach camp reported that 35% of the patients attending the camp were advised surgery.[4] Vijaya et al. in a study showed a prevalence of 13.4% cataracts at rural eye camps.[5] Nayak RR et al. reported a mean of 11.05% of cataracts recognized at the outreach camps.[1]

Nevertheless, outreach camps play a significant role in reducing the burden of cataract in rural areas. In a country like India, awareness provided by these outreach programs is necessary to eliminate cataract associated blindness as India is one of the country which is dominated by ignorance about health problems.[1] Periodic organization of well-managed eye camps in rural areas are needed to reach the unreached targets but the perfect solution will always be permanent access to a stationary hospital with an ophthalmologist as well as appropriate medical equipment.

Conclusion:

From present study, we may conclude that most of the patients reported in eye camps were females & commonly treatable cause of blindness in elderly population in rural areas was cataract. Early detection of diseases in this population will reduce the burden of blindness. Hence, in decreasing the visual morbidity due to cataract, glaucoma, diabetic retinopathy etc in rural areas conducting of outreach camps forms an integral part.

Table No. 1 Age wise distribution of studied population:

Age (in years)	No.	%age
≤ 40	40	24.54
>40-50	53	32.51
>50-60	48	29.45
>60	22	13.50

Table No. 2 Sex wise distribution of studied population:

Sex Distribution	No.	%age
Male	78	47.85
Female	85	52.15

Table No. 3 Ocular Morbidity Seen Among studied population:

Ocular Morbidity	No.	%age
Refractive Errors	100	61.35
Cataract	26	15.95
Vitmin A Deficiency	0	0
Conjunctivitis	2	1.23
Squint	1	0.61
Colour blindness	0	0
Amblyopia	0	0
Ptosis	0	0
Stye	2	1.23
Chalazion	1	0.61
pterygium	3	1.84
Foreign body	1	0.61
Diabetic retinopathy	3	1.84
Glaucoma	2	1.23
No ocular morbidity	22	13.50

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