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Original Research Article

Self-medication in ophthalmology - a northern Indian tertiary hospital experience

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ABSTRACT

Background: The objective of the study was to identify practice and pattern of self-medication use among new patients attending ophthalmology OPD in a tertiary care hospital of north India. Self-medication practice is a common phenomenon all over the world but it has been reported to be very common in the developing countries especially in India. When consumers self-medicate without consulting the eye care giver, the issues of safety and irrational use of drugs arise.

Methods: A cross-sectional questionnaire based, observational study was planned among the patients reporting for the first time to Ophthalmology OPD in ASCOMS, Jammu. The patients enrolled in the study were randomly selected in the age group ≥18 years. Detailed history regarding self-medication prior to reporting to OPD was obtained. A questionnaire elucidating details of self-medication regarding history of ocular self-medication, type of ocular medication used, their reasons for resorting to ocular self-medication etc. was provided to them. All participants were informed about the scope and purpose of the study. An informed consent was obtained in every case prior to being given the questionnaire.

Results: A total of 296 responders were interviewed. Among these 122 (41.2%) admitted to have used eye medicines before coming to hospital. Redness in 38 (31.1%) cases was the most common complaint for which the patients opted self-medication. 49 (40.2%) patients did not know what drug they had used. Among the various drugs used, the commonest was the antibiotic eye medication in 33 (27%) patients followed by steroids 13 (10.7%). Among the responders 9 (7.3%) experienced side-effects after self-medication. Main factors influencing self-medication were advice from friends/relatives, living far from hospital and high cost of treatment at the hospital.

Conclusions: Self-medication with eye medicines is common among the population interviewed. Educating the public about the dangers of self-diagnosis and treatment, possibly leading to delay in detection of more serious underlying ailments is essential.

Keywords: Eye medicines, Self-medication, Tertiary eye care centre

INTRODUCTION

Self-medication is defined by the World Health Organization (WHO) as the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms.[1] Self-medication is also defined as obtaining and consuming one or more drug(s) without the advice of a physician either for diagnosis, prescription or surveillance of the treatment.[2]

Apart from being a common phenomenon all over the world it has been reported to be very common in the developing countries.[3] Self-medication behaviour includes purchasing drugs without a prescription, using leftover doses from previous prescriptions, sharing drugs with other family members or social groups, or misusing the medical prescription either by prolonging, interrupting or modifying the dosage and the administration period.[4-6]

While first-aid measures are being widely advocated for cuts, foreign particles, chemical splashes and physical trauma to the eyes, the providers and techniques are well specified to lessen the risk of permanent damage caused by eye injuries.[7] Thus, a wide spectrum of symptoms and pathologies are lessened by this practice, with eye-conditions being no exception.

Health care professionals have a key role to play in providing patients with assistance, advice and information about medicines available for self-medication. Thus, it will be a responsible act for patients to seek assistance from any health professionals regarding proper selection or use of non-prescription drugs because it is well known that the self-medication attitude and practice carries pharmacological and toxicological risks[8] not only related to the potential severe side-effects of the topical drug itself, but also dangerous as a result of inappropriate treatment or failure to seek prompt medical care, thus leading to a postponement in diagnosis and , in turn to unintended consequences.

The public interest will best be served when self-medication is responsible, only undertaken when it is appropriate to do so and advice is always given to seek a consultation with a physician when that is necessary. Regarding self-medication in ophthalmic practice, the evidence is scarce in Indian population. Therefore, due to lack of much of the evidence related to self-medication in Indian population and in view of the potential risk of adverse effects that could be associated with inappropriate use of drugs for what may seem like a minor eye problem we carried out this study to determine the prevalence of self-medication practices among patients with ocular problems, factors influencing self-medication, the side-effects encountered and whether the medicines are used rationally.

METHODS

A cross-sectional questionnaire based, observational study was planned among the patients reporting for the first time to Ophthalmology OPD in ASCOMS, Jammu. The patients enrolled in the study were randomly selected in the age group ≥ 18 years. Detailed history regarding self-medication prior to reporting to OPD was obtained. A questionnaire elucidating details of self-medication regarding history of ocular self-medication, type of ocular medication used, their reasons for resorting to ocular self-medication etc. was provided to them.

All participants were informed about the scope and purpose of the study and were informed that it shall be voluntary to participate, without any compensation and their medical assistance will not be compromised if they will refuse or will decide to participate in the survey. An informed consent was obtained in every case prior to being given the questionnaire.

RESULTS

Table 1: Demographic variables of the respondents.

Variables	Frequency	%
Sex		
Male	84	68.8
Female	38	31.1
Age		
18-30	26	21.3
31-50	53	43.4
51-70	34	27.8
70 or older	9	7.3
Education		
Primary	8	6.5
Secondary	36	29.5
Higher Education	48	39.3
Illiterate	30	24.5

Table 2: Conditions that led to self-medication.

Condition	Frequency	%
Red eyes	37	30.3
Painful eyes	18	14.7
Poor vision	6	4.9
Teary eyes	19	15.5
Itchy eyes	26	21.3
Discharge	4	3.2
Injury	0	0
Cataract	4	3.2
Swelling of the eyes	8	6.5
Patients who do not remembered the name of the eye medicine used	49 (40.1%)	
Patients who remembered the name or showed the sample of medication used	73 (59.8%)	

Table 3: Type of ocular medication used.

Drugs	Frequency	%
Antibiotics	29	39.7
Steroids	17	23.2
NSAIDS	8	6.5
Vasoconstrictors	3	4.1
Saline solution	1	1.3
Anti-allergic	7	9.5
Other drugs not included previously	8	10.9

A total of 296 patients were interviewed. Among these 122 (41.2%) admitted to have used eye medicines before coming to the hospital. Demographic features of respondents are shown in Table 1. Ocular problems that

led respondents to use eye-medicines are shown in Table 2. Redness in 38 (31.1%) was the most common complaint for which the patients opted self-medication followed by itching in eyes in 27 (22.1%). Among the respondents 49 (40.2%) of the patients were not aware of the names of the eye medicines used. 73 (59.8%) of the patients remembered the names or showed the sample of the medication used.

Table 4: Factors influencing self-medication.

Factors	Frequency	Percentage
I Know what to do	4	3.2
Complaints are minor	7	5.7
Advice from family members/friends	57	46.7
Long waiting time at the hospital	4	3.2
High Cost of treatment at the hospital	15	12.2
No reason/Busy	3	2.4
Non availability of doctors/Living far from hospital	32	26.2

Table 5: Reasons for reporting to OPD.

Reasons	%
Failure to improve	63.9
Suboptimal response	28.6
Worsening of condition	7.3

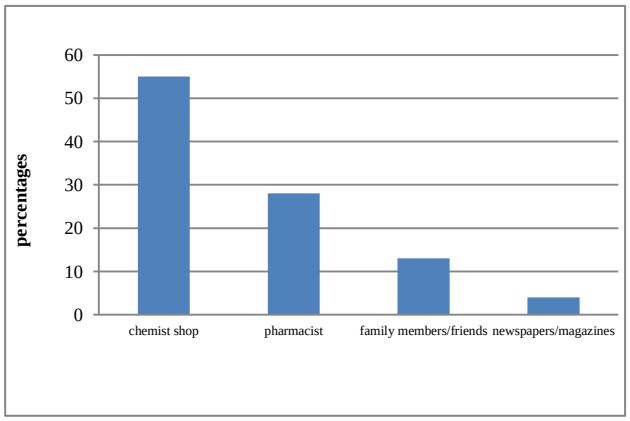

Figure 1: Sources of medicines used for self-medication.

The names of the medicines used are shown in Table 3. Of the various drugs used, antibiotics constituted the highest group of medications used in 29 (39.7%) followed by steroids in 17 (23.2%). The patients obtained the medications from different sources. These are shown in Figure 1. The most common source from where the patients obtained the drug was the chemist shops in 69 (56.5%) of the patients.

Table 4 shows the factors that influenced respondents to self-medicate. Advice from family friends and relatives in 57 (46.7%) living far from hospital in 32 (26.2%) and high cost of treatment at the hospital in 15 (12.2%) patients were the major motivating factors for self-medication.

Table 6: Side-effects experienced by respondents after self-medication.

Side-effects	Frequency
Excessive tearing	3
Discharge	2
Increased pain	1
Inflammation of the eye	2
Increased irritation	0
Corneal ulceration	1
Blurring of vision	2
Total patients who experienced side-effects after self-medication	11 (9%)

Various reasons for which the patients reported to OPD are shown in Table 5. Among these failure to improve was the main reason seen in 77 (63.1%) of the patients. 11 (9.1%) of the respondents experienced side-effects after self-medication.

Table 6 shows the different side-effects experienced by the patients. Inflammation of the eye, increased irritation, excessive tears were among the major side-effects experienced by the respondents.

DISCUSSION

The present study has shown that about 41.2% of the respondents used eye medicines before coming to hospital. Self-medication by people with ocular problems has been reported in several studies.[9,10] In our study, redness in 38 (3.1%) was the most common complaint for which the patients opted self-medication. Similar findings were reported in studies done by Kadri R et al.[11] and Tayanithi et al.[12] where people with red eyes and those with itchy eyes respectively self-medicated more. Patients with redness in eyes could also be suffering from more serious underlying conditions like uveitis, keratitis or acute angle closure glaucoma which require immediate and precise treatment. There will be an inevitable delay in obtaining expert treatment from a qualified ophthalmologist when the patient opts for self-medication.

Most of the patients had come to the hospital due to failure in the improvement of the ocular ailments for which they opted self-medication. In our study 59.8% of the patients knew the names of the medicines used. 40.2% of the respondents were not aware of the names of the medicines used. Not knowing the names of the medicines used by the patients who practice self-

medication was also reported in a study by Godeliver A.B. kagashe.[13] This puts the health care worker in a difficult position when trying to help the patient as he/she may not know whether the drug taken may interact with the one he/she is going to prescribe. Thus, this practice of non-prescription drug use, as well as the potential for therapeutic misadventure is a serious health issue and requires the attention of all stakeholders to reduce the burden.

In our study, Antibiotics in 39.7% of patients was the commonest group of drugs utilized before presentation to the eye-care centre. This is in consistent with studies by Ajayi et al.[14-16] This might be due to the belief that most of the eye problems are due to the bacterial infections, but the use of antibiotics in our study population was mostly for non-infective eye conditions like allergic conjunctivitis, refraction, glaucoma, corneal laceration, cataract etc., most of which do not require antibiotics. This implies that in most cases antibiotics were misused. The burden of antibiotic abuse is so high to the extent that concerns have been raised by WHO which necessitated a call on the public, prescribers, policy makers, pharmaceutical industry to ensure a responsible use of this category of pharmaceutical agents.[17] Antibiotics are prescription only medicines, using them without a physician's advice is irrational.

In our study, the main influencing factor, with respect to which eye-drop to buy for self-medication, was the advice from family members and friends. This is in consistent with a study done by GE Marquez et al.[18] where the advice from family members was also the main motivating factor in one of the population groups. In our study, 56.5% of the patients obtained the drug from the chemist shop. This is in contrary to the study done by GE Marquez et al.[18] where the pharmacist constituted the main group. In our study, chemist shops constituted the main source of obtaining the drug by the patients. This might be due to easy accessibility of patients to these retail outlets. Thus, a better control in drug selling is needed. This could rationalize the utilization of ophthalmic medicines.

CONCLUSION

Self-medication with eye-medicines was common among patients with ocular problems. Antibiotics were the drugs mostly used while redness and itching were the most reported symptoms. Chemist shops were the major source of medicines for self-medication. Although self-medication can be employed when urgently required, extended use of any such medication needs to be approved by an ophthalmologist. Most of the conditions required more specialized care. There is therefore a need for health education of the population on the need to desist from self-medication for eye care without seeking health advice from appropriate health care professionals.

In India, easy availability of a wide range of prescription drugs across the counter without a valid prescription, lack of stringent controls over medical advertising, low medical literacy among the population and also the compulsion to reduce health care costs seem to be the motivating factors for self-medication. Thus rules and regulations should be made stringent so that the prescription only medicines will be dispensed upon presentation of a prescription, and over the counter medicines will be dispensed for the right indication.

However, more extensive studies need to be conducted to know the actual extent of self-medication practice in ophthalmology practice. Public education on judicious use of topical ophthalmic Over the counter preparations is the need of the hour.

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