

Ramadan and eye drops: perspective of Muslims in Karachi Pakistan

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Abstract

Purpose: To assess views of Muslims with regard to the use of eyedrops during fasting periods of Ramadan and to determine if demographic and educational factors or the ocular condition or disease influence these views.

Design: Cross-sectional survey.

Participants: Four hundred adult Muslims.

Methods: A questionnaire-based survey conducted during month of Ramadan from August 10 to September 9, 2010. 400 Muslims from two mosques, two hospital and two medical colleges were asked to fill the specified questionnaire that included questions regarding use of eyedrops during fasting.

Results: Of the 400 questionnaires collected, 140 were excluded because of incomplete data entry (n - 260). Among respondents, 83.8% (n - 218) believe that using eyedrops during fasting periods of Ramadan would break the fast, and only 14.6% (n - 38) would use drops during this period. A further 13.8% (n - 36) would continue their regular treatment, 14.6% (n - 38) would use drops for a non painful eye condition, 58.4% (n - 152) for a painful eye condition, 14.6% (n - 38) for a condition that did not affect vision, and 46.9% (n - 122) would use drops during the fasting period for an eye condition if vision was affected. No significant association was noted when comparing views of respondents based on gender, occupation, education, and number of days the fast is observed.

Conclusions: This study provides an insight into views of Muslims regarding use of eyedrops during Ramadan. The results suggest that extensive misuse of prescribed drops should be anticipated during Ramadan.

Keywords: Eyedrop, Ramadan & Eyedrops, Glaucoma, Painful eye conditions, Conjunctivitis

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Introduction:

Ramadan is the ninth month of Islamic lunar calendar, and for more than one billion Muslims around the world, is a month of blessing marked by fasting, prayers and charity. During Ramadan, adult Muslims can consume food and beverage only after sunset (Iftar) and before dawn (Sehri). Islam exempts people from fasting if they are unwell or if fasting will significantly affect their health, however a large proportion of patients insist on fasting against the advice of their doctors and religious leaders^{1,2}.

There have been reports of poor compliance and

widespread misuse of prescribed medical treatment during Ramadan^{3,4,5,6}. This deviation in compliance with treatment may have significant adverse consequences. Specialties like endocrinology, cardiology and diabetes have studied the views and practices of Muslims regarding Ramadan and have formulated management plans in keeping with the religious needs of this community^{7,8,9,10,11,12}.

For chronic ocular conditions like glaucoma, compliance with treatment has been studied, and factors responsible for noncompliance have been studied^{13,14,15}. These include social,

economic, and demographic factors. However, there have been no studies to assess the views of Pakistani Muslims regarding the use of eye drops during the fasting hours of Ramadan and the factors that influence these views. In the religiously conservative society that we live in today, it is important to understand the religious beliefs and taboos of various Muslim communities to treat patients effectively.

Ophthalmologists have not addressed this potentially important cause of noncompliance with ocular treatment. In this study, the authors evaluated the Muslims of Karachi perspective on the use of eye drops during the fasting hours of Ramadan and factors that affects these views.

Material and methods:

A survey consisting of a series of questions designed to assess the views of Muslims regarding the use of eye drops during Ramadan was used (Table 1).

This study was conducted during the month of Ramadan from August 10 to September 9, 2010. Four hundred Muslim patients were asked to fill in the specified questionnaire that included questions regarding use of eye drops during fasting.

The authors visited 2 mosques, in Karachi to collect responses. They also conducted this survey on patients with eye problems visiting there hospital out patients department and to know the views of Muslims with medical knowledge they

also conducted this survey on medical students studying in their hospital.

Participation in the survey was anonymous and voluntary. The questionnaire was also translated into Urdu for respondents who do not understood English.

Four hundred questionnaires were collected from adult Muslims during the month of Ramadan. Incomplete response was excluded from study but was consider how Muslims don't have knowledge on use of eye drops during fast and how they fear to answer any questions if they have any dough's on religious topics.

Results:

There ware 400 questionnaires collected. 200 were conducted on people in 2 mosques, 100 were conducted on patients that visited the eye Outpatient Departments of 2 hospitals and 100 were the responses of 4th year students of 2 medical colleges in Karachi.

140 (35%) were excluded from study because of incomplete data entry from the person because most of them wanted to consult religious scholars before answering such questions. (Table 2)

There were 110 females and 150 males respondents aged between 18 and 70 years. Sixty-one were unskilled workers, 59 had jobs or skilled employed. 20 were housewives, 78 were students out of which 68 were medical students and 42 were either retired or unemployed.

One hundred and eight respondents were illiterate or had education below matric. 152 had university degree.

Religious practice: Two hundred seven (79.6%) respondents fast all days of Ramadan and 53 (20.3%) fast for only part of Ramadan. One hundred sixty of the 260 respondents would fast for additional days after Ramadan if the fast was broken for any reason during the month of Ramadan. (Table 3)

Two hundred eighteen (83.8%) respondents believe the use of eyedrops during fasting hours

Table 1: Questions studied

1	Age
2	Gender
3	Education
4	Occupation
5	Number of days the respondent fast during Ramadan
6	If using eyedrops during fasting period breaks the fast?
7	Would you use eyedrops during fasting period?
8	If eyedrops are used during fasting periods should you fast for additional days? Would you use eyedrops in the following conditions; If they were part of your regular treatment for an eye condition? For a painless eye condition? For a painful eye condition? For an eye condition that does not affect your sight?
9	For an eye condition that affects your sight?

Table 2: Data collect from and number of respondents those gave answers for complete data questions

Place of collecting data	Total n=400	Complete Answers n=260	Incomplete Answers n=140
Sultan Mosque DHA	100	73	27
Quyyumabad Mosque	100	58	42
Eye OPD, Sir Syed Hospital	50	32	18
Eye OPD, Jinnah Medical & Dental Hospital	50	29	21
4th year medical students Sir Syed Medical College	50	35	15
4th year medical students Jinnah Medical & Dental College	50	33	17

Table 3: Opinions regarding the use of Eyedrops during fasting hours of Ramadan (n=260)

	Yes	No
Using eyedrops breaks the fast:	218 (83.8%)	42 (16.1%)
Would you use eyedrops during Ramadan?	38 (14.6%)	
Would you continue your regular eyedrops treatment during fasting hours of Ramadan?	36 (13.8%)	224 (86.1%)
Non-painful eye condition:	38 (14.6%)	222 (85.3%)
Painful eye condition:	152 (58.4%)	108 (41.5%)
Sight not affected:	38 (14.6%)	222 (85.3%)
Sight affected:	122 (46.9%)	138 (53.0%)

of Ramadan breaks the fast, whereas 42 (16.1%) believe that the use of drops during fasting hours does not break the fast. Thirty-eight (14.6%) respondents would use drops during the fasting hours of Ramadan. Thirty-six respondents (13.8%) would continue and 222 (85.3%) would discontinue their regular treatment if it involved the use of drops during fasting hours of Ramadan. Thirty-eight (14.6%) would use drops during the fasting hours for a nonpainful eye condition, whereas 152 (58.4%) would use drops during the fasting hours for a painful eye condition. Thirty-eight (14.6%) would use drops during the fasting hours for an eye condition where sight was not affected, whereas 122 (46.9%) would use drops during the fasting hours for an eye condition if their sight were affected.

Factors assessed that may affect opinions regarding the use of drops during the fasting hours of Ramadan.

Gender: There was no significant difference between the views of males and females regarding the use of drops during Ramadan. (Table 4)

Education: The responses of people with no education or with education uphill higher school were compared to those who were educated higher than matric. (Table 5) The group with no education included illiterate or had education below or till matric. The educated group included people with education higher than matric, students studying above higher school or has finished studying that was higher than matric, medical students and having university degrees. There was difference between the two groups regarding the use of eyedrops during Ramadan for the painful eye conditions and for those eye conditions where vision can be affected. There was slight difference between uneducated and educated respondent was to the question regarding the use of eyedrops during Ramadan for painful eye conditions. Almost Sixty-eight percent in the uneducated group would use eyedrops in Ramadan for painful eye condition, compared with fifty one percent in the educated group. There was significant difference between those respondents with education compared with those uneducated to the question regarding the use of drops during Ramadan for eye condition where vision was affected. Seventy one percent of the respondents in the educated group would use eyedrops for conditions that would affect their vision compared to only twelve percent in the uneducated group who would use eyedrops for the same condition.

For all the remaining questions, there was no statistical difference in opinions between the two groups.

Medical education: we wanted to know response of using eyedrops during Ramadan from people with medical knowledge, so conducted this survey on 100 medical students. We were surprised to find that when we compared the respondents with educated group excluding the medical students with those who were studying in 4th year M.B.B.S., there was no statistical difference in opinions between the two groups.

Number of days the fast is maintained during Ramadan.

Table 4: Responses of Female versus Male Adult Muslims

	Female n=80	Male n=180
Using eyedrops breaks the fast:	Yes 64 (80.0%)	154 (85.5%)
	No 16 (20.0%)	26 (14.4%)
Would you use eyedrops during Ramadan?	Yes 14 (17.5%)	24 (13.3%)
	No 66 (82.5%)	156 (86.6%)
Would you continue your regular eyedrops treatment during fasting hours of Ramadan?	Yes 13 (15.0%)	23 (12.7%)
	No 67 (83.7%)	157 (87.2%)
Non-painful eye condition:	Yes 14 (17.5%)	24 (13.3%)
	No 66 (82.5%)	156 (86.6%)
Painful eye condition:	Yes 49 (61.2%)	103 (57.2%)
	No 31 (38.7%)	77 (42.7%)
Sight not affected:	Yes 14 (17.5%)	24 (13.3%)
	No 66 (82.5%)	156 (86.6%)
Sight affected:	Yes 38 (47.5%)	84 (46.6%)
	No 42 (52.5%)	96 (53.3%)

Table 5: Responses of people with education compared with those without education

	Uneducated Group n=108	Educated Group n=152
Using eyedrops breaks the fast:	Yes 94 (87.0%)	124 (81.5%)
	No 14 (12.9%)	28 (18.4%)
Would you use eyedrops during Ramadan?	Yes 11 (10.1%)	27 (17.7%)
	No 97 (89.8%)	125 (82.2%)
Would you continue your regular eyedrops treatment during fasting hours of Ramadan?	Yes 10 (9.25%)	26 (17.1%)
	No 98 (90.7%)	126 (82.8%)
Non-painful eye condition:	Yes 11 (10.1%)	27 (17.7%)
	No 97 (89.8%)	125 (82.2%)
Painful eye condition:	Yes 73 (67.9%)	79 (51.9%)
	No 35 (32.4%)	73 (48.0%)
Sight not affected:	Yes 11 (10.1%)	27 (17.7%)
	No 97 (89.8%)	125 (82.2%)
Sight affected:	Yes 13 (12.0%)	109 (71.7%)
	No 95 (87.9%)	42 (28.2%)

There was no significant difference between views of those fasting all days of Ramadan compared with those fasting only part of the month.

Fast More Days after Ramadan to Compensate for Days If the Fast Was Broken during Ramadan.

Those respondents who would fast additional days after Ramadan had significantly different views than those who would not. A higher pro-

portion of those who would fast additional days believe that the use of drops would break the fast and a smaller proportion of them would use drops during the fasting hours for all of the circumstances assessed in the survey (Table 6).

Discussion:

Ramadan begins with the sighting of the new moon, after which all physically mature and healthy Muslims are obliged to abstain from all food, drink, and all sexual contact between dawn and sunset. According to the Quran, the fast is an exacting act of deeply personal worship and is the third of the Five Pillars of Islam. The others are Tauheed, Namaz, Zakat, and pilgrimage to Makkah. Because Ramadan is dependent on the lunar calendar, it does not have a fixed date every year. The dates are decided on and announced annually according to the Muslim calendar.

Muslims are a heterogeneous group of individuals who believe in Allah and the Quran; however, they differ in the details of their beliefs. It therefore is not possible to generalize any survey of a particular group of Muslims, because views and beliefs will vary based on various sects of Islam, the Imam the individual follows, and individuals' understanding of their own religion. It is also important to realize that religious beliefs are very personal to an individual and interpretation of faith may vary considerably within each community.

An Internet search on use of medication during Ramadan gave conflicting advice on the use of drops during Ramadan. A certain section of Muslims believe that drops do not enter the gut and, therefore, do not break the fast. There are recommendations on the Internet that eyedrops may be used during the fasting hours provided the tear duct is occluded with digital pressure to avoid the drops reaching the throat. The authors' Internet search suggests that there is no consensus among Muslim regarding fasting during Ramadan and the use of prescribed medication¹⁶.

Previous studies have assessed compliance with treatments for diabetes, asthma, anticoagulation, and epilepsy during Ramadan²⁻¹². Aslam and

Table 6: Responses of Those Who Would Fast Additional Days after Ramadan If the Fast Was Broken Compared with Those Who Would Not

		Not Fast Ad- ditional days n=100	Fast Additional days n=160
Using eyedrops breaks the fast:	Yes	68 (68%)	150(93.7%)
	No	32 (32%)	10 (6.4%)
Would you use eyedrops during Ramadan?	Yes	30 (30%)	8(5%)
	No	70 (70%)	152(95%)
Would you continue your regular eyedrops treatment during fasting hours of Ramadan?	Yes	29 (29%)	7 (4.3%)
	No	71 (71%)	153 (95.6%)
Non-painful eye condition:	Yes	30 (30%)	8(5%)
	No	70 (70%)	152(95%)
Painful eye condition:	Yes	70 (70%)	82 (51.2%)
	No	30 (30%)	78 (48.7%)
Sight not affected:	Yes	30 (30%)	8(5%)
	No	70 (70%)	152(95%)
Sight affected:	Yes	72 (72%)	42(25%)
	No	28 (28%)	118(73.7%)

Healy² surveyed 81 patients to determine the alterations they made to their drug regimens during the fasting period of Ramadan. They found that 42% of the patients adhered to and 58% changed their usual treatment pattern. Among the latter group, 35 patients stopped their treatments, 8 changed the administration schedule, and 4 took all their daily doses in 1 intake.

Another survey of 325 outpatients in a Kuwaiti hospital found that 64% of Muslim patients changed their drug regimens during Ramadan¹. One prospective study evaluated the changes in frequency of seizures during Ramadan in 124 patients with idiopathic epilepsy. Seizures occurred in 27 patients during this month; 20 of them did not use any antiepileptic drugs from dawn to sunset⁶. Studies and reports suggest that patients arbitrarily modify the timing and frequency of doses, and even the total daily dosage of drugs during the month of Ramadan, often without seeking any medical advice¹⁻¹².

This survey aimed to assess the Muslim perspective regarding the use of eyedrops during Ramadan. Because fasting during Ramadan is obligatory for adult Muslims, it could be an important cause for noncompliance with prescribed treatment. Studies have documented compliance

with glaucoma treatment in the general population and factors responsible for noncompliance.

A similar survey by Nishant Kumar and Sharmila Jivan¹⁷ assessed the use of eyedrops during Ramadan in Mumbai. During their survey, only 10 (5%) of respondents declined to answer their questions before consulting. Among respondents, 63.7% believe that using eyedrops during fasting periods of Ramadan would break the fast, and only 34.2% would use drops during this period. A further 34.2% would continue their regular treatment, 35.8% would use drops for a non-painful eye condition, 66.8% for a painful eye condition, 35.3% or a condition that did not affect vision, and 75.8% would use drops during the fasting period for an eye condition if vision was affected. No significant association was noted when comparing views of respondents based on gender, occupation, education, and number of days the fast is observed.

Our survey assessed Pakistani Muslims living in a metropolitan city of Karachi. The survey was designed to represent a wide spectrum of demographic groups, educational qualifications, including medical students, and occupations. To include this diverse group of Muslims in the survey, the authors chose the 2 mosques, 2 Medical colleges, and 2 hospitals for data collection.

During the survey, a large number of respondents about 140 (35%) declined to answer our questions before consulting their elders or religious alims for advice. Incomplete response was excluded from study but was considered how Muslims don't have knowledge on use of eye drops during fast and how they fear to answer any questions if they have any doubt on religious topics.

Among respondents, 83.8% (n - 218) believe that using eyedrops during fasting periods of Ramadan would break the fast, and only 14.6% (n - 38) would use drops during this period. A further 13.8% (n - 36) would continue their regular treatment, 14.6% (n - 38) would use drops for a non-painful eye condition, 58.4% (n - 152) for a painful eye condition, 14.6% (n - 38) for a

condition that did not affect vision, and 46.9% (n - 122) would use drops during the fasting period for an eye condition if vision was affected.

This signifies the fact that in Pakistan we live in a religiously conservative society. Based on the views expressed through our survey, it can be extrapolated that Extensive misuse of prescribed treatment during Ramadan should be anticipated. This may lead to failure of therapy.

Conclusion:

The authors believe that there is wide dissemination in the research results. The study showed that respondents were confused regarding the use of eye drops during fasting. There is a need for consensus among religious scholars in this regard. Meanwhile, the ophthalmologists should encourage patients to continue taking their medication to prevent irreversible damage as a result of ocular disease.

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