



## Therapeutic Compliance in Ophthalmology During the Month of Ramadan: A Clinical Study of 50 Cases (Ramadan 2025)

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### ABSTRACT

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**Purpose:** To evaluate the impact of Ramadan fasting on therapeutic compliance among ophthalmic patients, focusing on three clinical situations: chronic glaucoma, postoperative care, and dry eye disease.

**Methods:** A prospective descriptive study conducted on 50 patients during the month of Ramadan 2025 at the ophthalmology departments of Rabat and Laâyoune.

**Results:** The mean age was 56 years (24–78), with a slight female predominance (58%). Glaucoma represented 44% of cases, postoperative follow-up 32%, and dry eye 24%. A decrease in compliance was noted in 40% of patients, mainly due to the belief that eye drops break the fast (65% of non-compliant cases). The most affected treatments were daytime instillations, particularly antiglaucoma drops.

**Conclusion:** Ramadan fasting significantly affects therapeutic adherence in ophthalmology. Targeted education and adjustment of instillation schedules can help preserve therapeutic efficacy, especially in glaucoma patients.

### KEYWORDS:

Compliance; Ramadan; Glaucoma; Eye drops; Postoperative care; Dry eye.

### INTRODUCTION

The month of Ramadan represents a unique period for Muslim patients, during which changes in diet and medication schedules can affect treatment compliance [1]. In ophthalmology, therapies such as antiglaucoma medications, artificial tears, and postoperative eye drops require strict regularity to maintain efficacy [2]. However, the persistent misconception that ocular instillation invalidates fasting leads some patients to alter or interrupt their treatment, exposing them to avoidable complications [3]. The objective of this study was to assess the impact of Ramadan fasting on treatment compliance among ophthalmology patients and identify clinical subgroups most at risk of non-adherence.

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### PATIENTS AND METHODS

A prospective descriptive study was conducted during Ramadan 2025 in the ophthalmology departments of Rabat and Laâyoune. Fifty fasting Muslim patients under topical ophthalmic treatment were included. The study focused on three clinical categories: chronic glaucoma, postoperative care, and dry eye disease.

Inclusion criteria: fasting patients with ongoing topical ophthalmic therapy, regular follow-up, and willingness to participate. Exclusion criteria: non-fasting patients, irregular follow-up, or systemic treatments affecting adherence.

Compliance was assessed using a standardized questionnaire evaluating instillation frequency, timing during fasting, and regularity. Clinical parameters such as intraocular pressure (IOP), ocular surface condition, and postoperative healing were monitored.

## **Z. Filali et al, Therapeutic Compliance in Ophthalmology During the Month of Ramadan: A Clinical Study of 50 Cases (Ramadan 2025)**

### **RESULTS**

The mean age was 56 years (24–78), with 29 females (58%) and 21 males (42%). Educational level was low to moderate in 60% of patients and high in 40%.

Clinical distribution:

- Glaucoma: 22 cases (44%)
- Postoperative care: 16 cases (32%)
- Dry eye disease: 12 cases (24%)

Therapeutic compliance was satisfactory ( $\geq 80\%$  of instillations) in 60% of patients. A decrease in adherence was noted in 40%, distributed as follows:

- Glaucoma: 50%
- Dry eye: 33%
- Postoperative: 17%

Main causes of poor compliance:

- Fear of breaking the fast: 65%
- Forgetfulness or daytime sleep: 20%
- Voluntary dose reduction: 15%

Clinical consequences:

- Glaucoma: mean IOP increase of +3 mmHg in non-compliant patients
- Postoperative: two cases of delayed conjunctival healing
- Dry eye: symptomatic worsening in 25% of cases

### **DISCUSSION**

Our study confirms that Ramadan fasting has a direct impact on ophthalmic treatment compliance, particularly for therapies requiring daytime administration [4]. Among glaucoma patients, reduced frequency of antiglaucoma drops often results in a transient but clinically relevant rise in intraocular pressure [5]. This finding aligns with North African studies where the main barrier to adherence was the fear of invalidating the fast [6,7].

Postoperative patients were less affected, as they are generally better informed and more aware of the risks of non-compliance [8]. Conversely, patients treated for dry eye tended to neglect symptomatic treatments, worsening discomfort and ocular surface instability [9].

Pre-Ramadan therapeutic education is therefore essential. Physicians should:

- Reassure patients that eye drops **\*\*do not break the fast\*\*** according to most religious authorities [10];
- Adjust instillation schedules to post-iftar and pre-suhoor periods;
- Simplify regimens to once- or twice-daily dosing when possible [11].

### **CONCLUSION**

Therapeutic adherence during Ramadan is a significant clinical issue in ophthalmology. In our 50-patient series,

40% showed reduced compliance, mainly among glaucoma patients. Better education, patient counseling, and tailored treatment timing can help maintain disease control without compromising religious observance. Ophthalmologists should integrate cultural and spiritual awareness into their clinical practice during Ramadan.

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