PURPOSE: To evaluate refractive errors in patients with migraine headache and to compare with healthy subjects.

MATERIALS AND METHODS: This prospective case-control study includes patients with migraine and age- and sex-matched healthy subjects. Clinical and demographic characteristics of the patients were noted. Detailed ophthalmological examinations were performed containing spherical refractive error, astigmatic refractive error, spherical equivalent (SE), anisometropia, best-corrected visual acuity, intraocular pressure, slit lamp biomicroscopy, fundus examination, axial length, anterior chamber depth, and central corneal thickness. Spectacle use in migraine and control groups was compared. Also, the relationship between refractive components and migraine headache variables was investigated.

RESULTS: Seventy-seven migraine patients with mean age of 33.27 ± 8.84 years and 71 healthy subjects with mean age of 31.15 ± 10.45 years were enrolled (p = 0.18). The migraine patients had higher degrees of astigmatic refractive error, SE, and anisometropia when compared with the control subjects (p = 0.01, p = 0.03, p = 0.02, respectively).

CONCLUSION: Migraine patients may have higher degrees of astigmatism, SE, and anisometropia. Therefore, they should have ophthalmological examinations regularly to ensure that their refractive errors are appropriately corrected.