

The prevalence and determinants of pterygium and pinguecula in an urban population in Shahroud, Iran

While pterygium is considered a common eye disorder, the etiology and pathogenesis is still not known. The aim of this study was to describe the prevalence of pterygium and pinguecula in the over 40 population of Shahroud and assess associated factors. The present study is part of the phase one of the Shahroud Eye Cohort Study conducted in 2009, in which the target population was people between 40 and 74 years of age. Ophthalmic examinations were performed by two ophthalmologists who made the diagnosis of pterygium and pinguecula. We used Chi-square tests, analysis of variance, and multiple logistic regression tests to examine associations. Of the 7311 invitees, 5190 people participated in the study (response rate: 70.9%). The prevalence of pterygium in at least one eye was 9.4% (95% CI, 8.6-10.2), while 2.9% (95% CI, 2.4-3.3) had bilateral pterygium. The prevalence was significantly higher in men (11.4% vs. 8.0%), and remained relatively constant with age, while the prevalence in women significantly increased with age. The prevalence of pinguecula was 71.0% (95% CI, 69.1-72.9) in at least one eye, and 49.0% (95% CI, 47.1-50.9) in both eyes. The age difference between those with and without pinguecula was significant and the prevalence was significantly higher among men than women (70.7% vs. 63.8%). The prevalence of pterygium in our study was lower than reported rates in the world but higher than Tehran and was significantly associated with age, gender, working outdoors, and the level of education. The prevalence of unilateral and bilateral pinguecula falls in the mid range and was significantly associated with age, male gender, smoking, working outdoors, and level of education.