

Molecular Epidemiology of Human Papillomavirus in Pterygium

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Received: 30 Nov 2014

Revised: 30 Jan 2015

Accepted: 2 Feb 2015

Abstract

Background and Objective: Ophthalmic pterygium is a potentially vision-threatening lesion of unknown etiology that often extends on the corneal surface and has a worldwide distribution. Despite various studies, the pathogenesis of pterygium remains unclear and the involvement of human papillomavirus is controversial. We aimed to investigate the involvement of papillomavirus in pterygium formation.

Material and Methods: This case-control study was conducted on 50 tissue specimens of pterygium from the patients who had pterygium surgery as the case group and 10 conjunctival biopsy specimens of individuals without pterygium including the patients with cataract surgery, as controls. The evidence of papillomavirus infection was tested by polymerase chain reaction (PCR).

Results: All samples, case and control, were not positive for papillomavirus. Both groups were positive for beta-globulin gene used to check the quality of extracted DNA.

Conclusion: In this study, due to the absence of papillomavirus in the context of Pterygium it seems that other factors are involved in causing the disease.

Keywords: Pterygium; Human Papilloma Virus; PCR