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Research Summary

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Data focus: Fiji

Title Survival rate of proliferative diabetic retinopathy (PDR) patients undergoing laser treatment at Pacific Eye Institute, Suva, Fiji, from 2012 to 2017.

Abstract

Introduction & Aim

Proliferative diabetic retinopathy (PDR) is a complication of diabetic retinopathy (DR) by which blood vessels in the retina become blocked, leak or grow incorrectly. It is recognised as one of the causes of vision loss globally and within Pacific populations. It can be corrected through a laser treatment. This study focuses on PDR and aimed to determine the five year-survival rate of PDR patients undergoing laser treatment at Pacific Eye Institute (PEI) in Suva, Fiji, from 2012 to 2017 and relate this to screening.

Methodology

A cross-sectional retrospective study conducted at PEI diabetes eye clinic in Suva, Fiji from 2012 to 2017 on 3,282 new cases of diabetic eye diseases, who attended first laser treatment as study population. Primary and secondary data were sourced from phone interviews and patient database. A convenience sampling method was used. Participant's recruitment based on study criteria. Power and sample size were computed using Epi Info Version 7, using 5% margin of error and 95% confidence interval. Analytic methods used were Microsoft excel and SPSS software (version 2017). Statistical methods used were Kaplan-Meier method, log-rank test and Cox regression in multivariable models with a statistical significance level of 0.05.

Results

A total of 103 participants were alive during the study while 52 had died as a result of their uncontrolled diabetes. Median survival time among PDR patients was 6 years. The estimated five-year survival rate was 69% (absolute). Those screened had a higher survival rate (50.6 %) than those who were not screened (25.9%). There was no statistically significant difference in overall survival time for both screening statuses (Log rank test = 1.4, df =1, P= 0.2) and 95 % confidence that the median survival time for both screening status was 5 years. Only those older than 56 years was strongly associated (P-value 0.031) with mortality of PDR patients.

Conclusion

The study reveals that PDR patients have higher survival rate after laser treatment, as well as those who have attended retinal screening. Thus, retinal screening and laser treatments are both important for pro-longed survival of PDR patients.