

UC Davis
Ophthalmology and Vision Science

Title

Natural History and Predictors of Vision Loss in Eyes with Diabetic Macular Edema and Good Initial Visual Acuity

Permalink

<https://escholarship.org/uc/item/392709hs>

Author

Luu, KieuYen

Publication Date

2021

Data Availability

The data associated with this publication are not available for this reason: N/A

Natural History and Predictors of Vision Loss in Eyes with Diabetic Macular Edema and Good Initial Visual Acuity

KieuYen Luu

University of California, Davis School of Medicine

Main Finding:

- In a sample of 126 eyes with DME and good baseline VA, older age and severity of diabetic retinopathy were associated with more rapid vision loss.
- Interestingly, no anatomical biomarkers on OCT were associated with vision loss over time.



Introduction

Ocular complications of diabetes mellitus are the leading cause of blindness and diabetic macular edema (DME) is one the main cause of central vision loss in diabetic patients.

Hypothesis

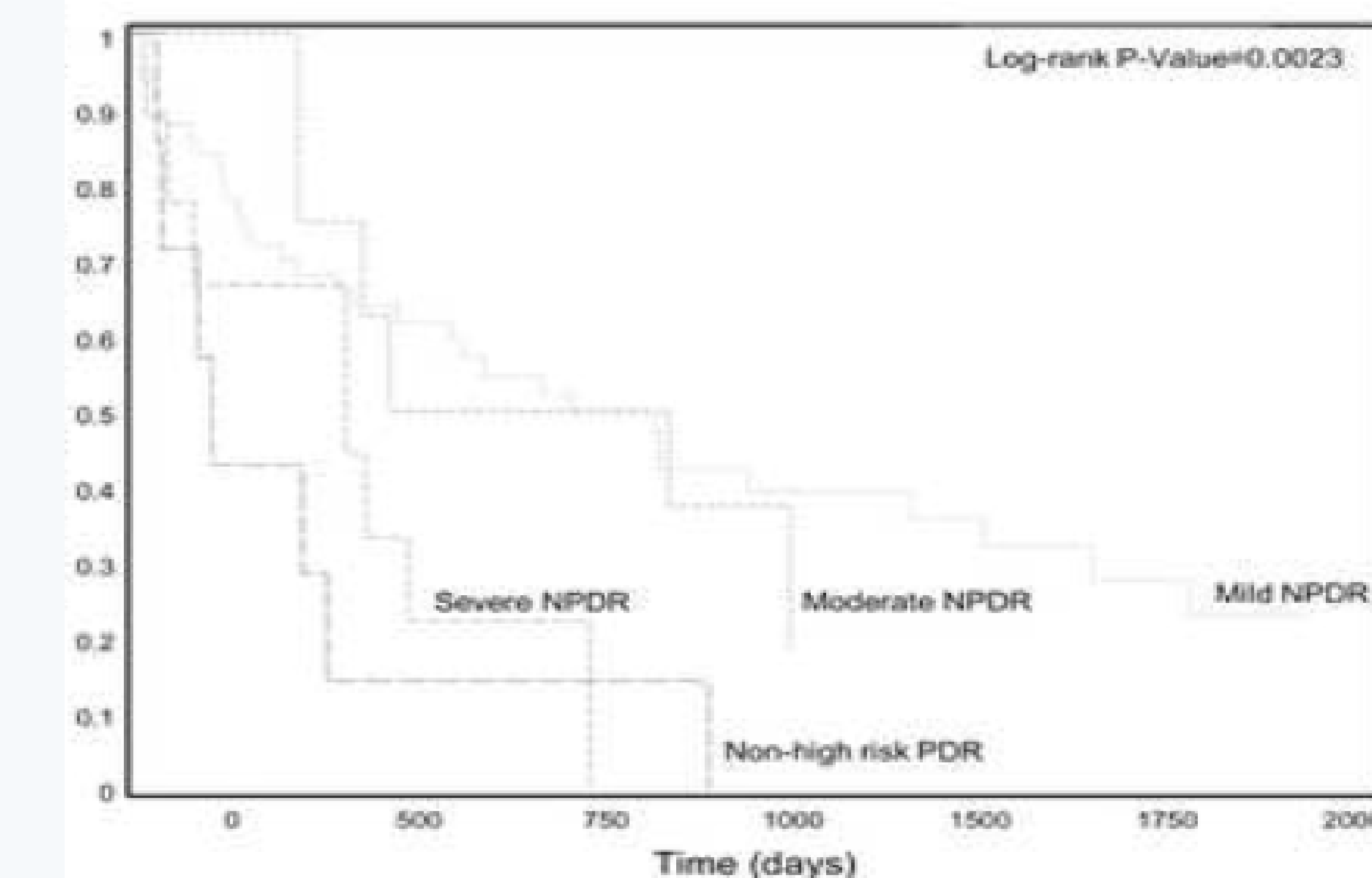
There will be anatomic and clinical factors in patients with DME and good visual acuity (VA) that are associated with increased vision loss over time.

Methods

- 2262 medical records reviewed for patients diagnosed with DME + VA \geq 20/25
- Baseline and clinical characteristics (age, sex, severity of diabetic retinopathy, etc) were recorded
- HbA1C levels and VA recorded annually.
- Optical coherence tomography (OCT) images were graded for anatomic markers.

Results

- 126 eyes had DME with good baseline VA.
- 75% of eyes underwent visual acuity loss over a period of \sim 4 years (20/22 \rightarrow 20/27)
- Older age and severity of diabetic retinopathy were associated with vision loss.
- No OCT biomarkers were associated with vision loss.



Discussion

- Our results were consistent to protocol V, a large prospective study with similar research parameters
- Hypothesize that our cohort study was not sensitive enough to identify a predicting imaging biomarker.