VisionAI

VisionAI — Doctor Report (aug_3223686)

1. Patient Overview

Patient ID	aug_3223686
Age	61.0
Gender	Male
Blood Pressure	142.0/72.0
Glucose (mg/dL)	110.0

2. AI Diagnostic Summary
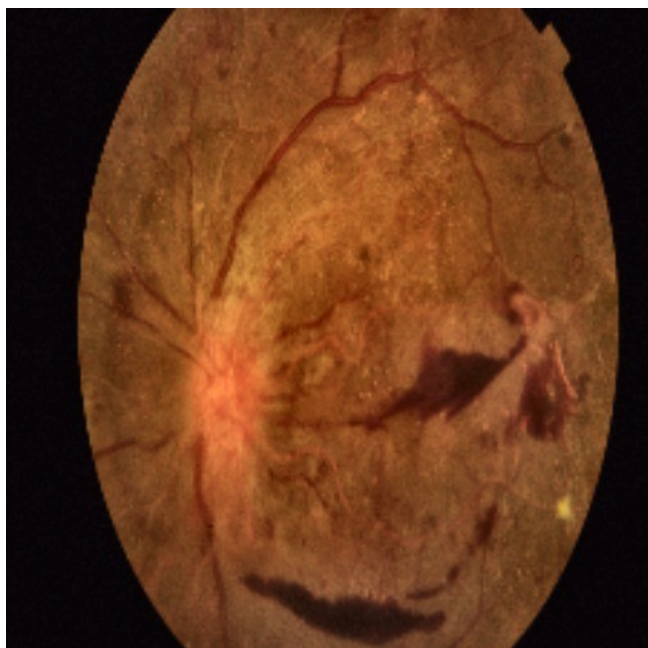
Predicted stage: Proliferative DR (PDR)
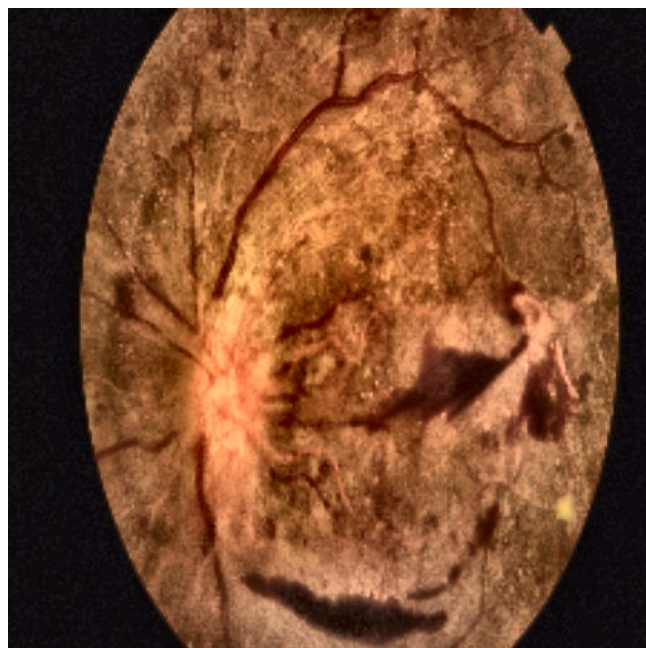**Lesion coverage:** 26.505298066812262%   **Confidence:** 83.3%

3. Lesion Quantification

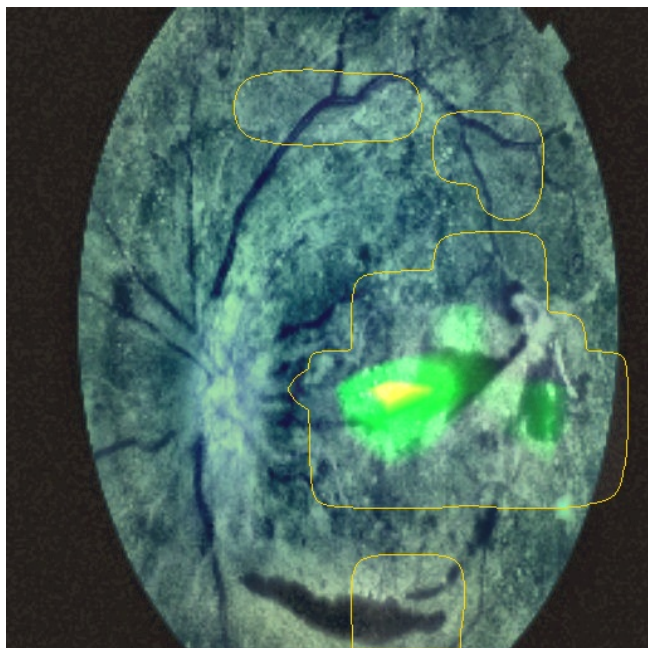| Lesion Type	Estimated %
Exudates	0.4177788562646607
Hemorrhages	1.4381622583515328
Cotton Wool	5.371673542020545
Total Lesion Coverage	26.505298066812262

4. Visual Evidence

Original

Preprocessed

Grad-CAM++

LIME

SHAP-like Feature Importance (VisionAI)
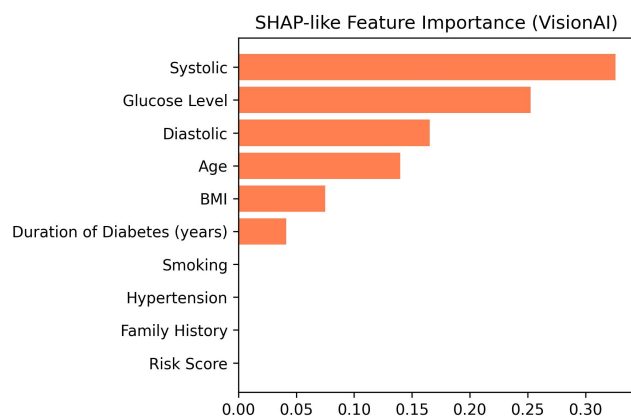
SHAP (metadata)

5. Interpretability Insights

Grad-CAM++ and LIME highlight regions that the model relied on for prediction. Lesion quantification gives approximate lesion coverage and type estimations. Use as an adjunct to clinical exam.

6. Clinical Recommendations

• Urgent ophthalmology referral (within 72 hours) due to high lesion coverage.
• Obtain full dilated fundus examination and fluorescein angiography if indicated.
• Control systemic risk factors (glycemic control, blood pressure).
• Document and follow lesion progression with serial imaging every 1–3 months depending on severity.

7. AI Confidence & Reliability Note

VisionAI provides algorithmic suggestions. The model may over/under-estimate lesion types. Cross-validate with clinical examination.