

# Clinical Report

Generated: 2025-11-12 13:10:03

Stage: NO\_DR

## Metadata Snapshot

Name: viji

Age: 45

Gender: Female

Systolic (mmHg): 118

Diastolic (mmHg): 75

BMI: 23.5

Glucose: 95

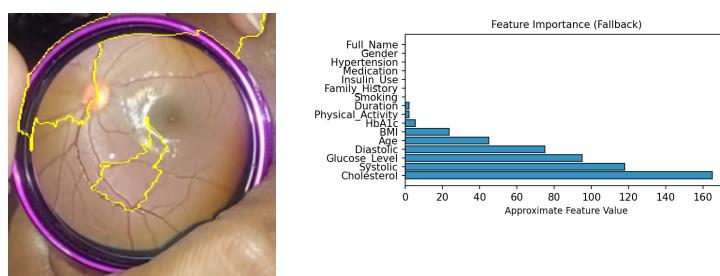
HbA1c: 5.5

Cholesterol: 165

Smoking: No

Hypertension: No

Diabetes Duration: 2



## Summary

- Clinical Report — Ophthalmologist
- Patient: Name: viji, Age: 45, BMI: 23.5
- Predicted stage: NO\_DR
- Model confidence: 59.29%

# Summary

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- Risk score: 40.71%
- Findings (automated lesion quantification):
  - Microaneurysms: 4.26%
  - Exudates: 19.68%
  - Hemorrhages: 3.33%
  - Cotton Wool: 24.59%
  - Neovascularization: 25.00%
  - Total Lesion Load: 51.85%
- Clinical interpretation:
  - No DR signs detected. Consider routine annual screening unless clinical suspicion exists.
- Model & Explainability:
  - Multi-model fusion: CNN ensemble (EfficientNet, ResNet50, ViT) + metadata models (RF, XGBoost, stacked ensemble).
  - Explainability outputs available: GradCAM++, LIME, SHAP — review heatmaps and overlay masks.
- Performance metrics:
  - Accuracy: 0.947
  - F1-score: 0.938
  - AUC/ROC: 0.971
- Suggested clinical action items:
  1. Correlate with slit-lamp exam and fundus exam.
  2. If macular edema suspected, obtain OCT imaging.
  3. For suspected PDR, arrange urgent retina referral for potential PRP/anti-VEGF.
  4. Document lesion masks if available for audit.

