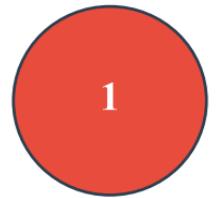
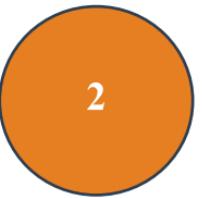


(a) Limitations of Traditional Diagnosis



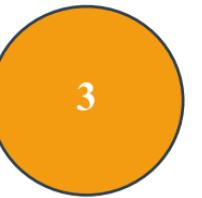
Inter-observer Variability

20-30%
error range



Fatigue Effects

Performance
decreases



Expertise Dependency

Years of
training



Time Constraints

100-300+
images/study



Specialist Shortage

1:100,000
ratio

(b) AI-Assisted Diagnosis Benefits



Consistency

100%
reproducible



Speed

5 ms
inference



Explainability

GradCAM +
RAG



Accessibility

Edge
deployable



Accuracy

97.40%
test acc