

Clinical Phenotypes, Temporal Dynamics, and Early Cardiac Risk in Orally Transmitted Acute Chagas Disease: A Longitudinal Outbreak Cohort from Colombia

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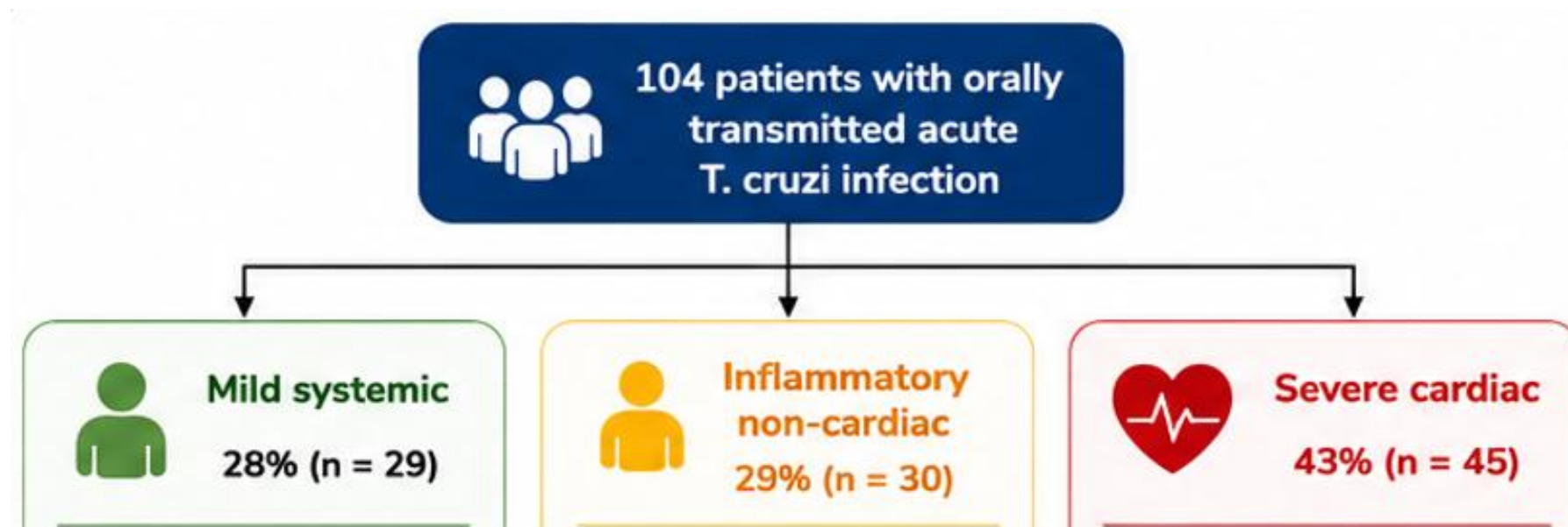
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INTRODUCTION & AIM

Orally transmitted acute Chagas disease is associated with high parasite inoculum, systemic inflammation, and frequent cardiac involvement. Acute myocarditis is among the most frequent complications and a major determinant of early clinical severity. Longitudinal evidence describing phenotype-specific trajectories remains limited.

Objective: To characterize phenotype-defined trajectories and identify predictors of severe cardiac involvement.

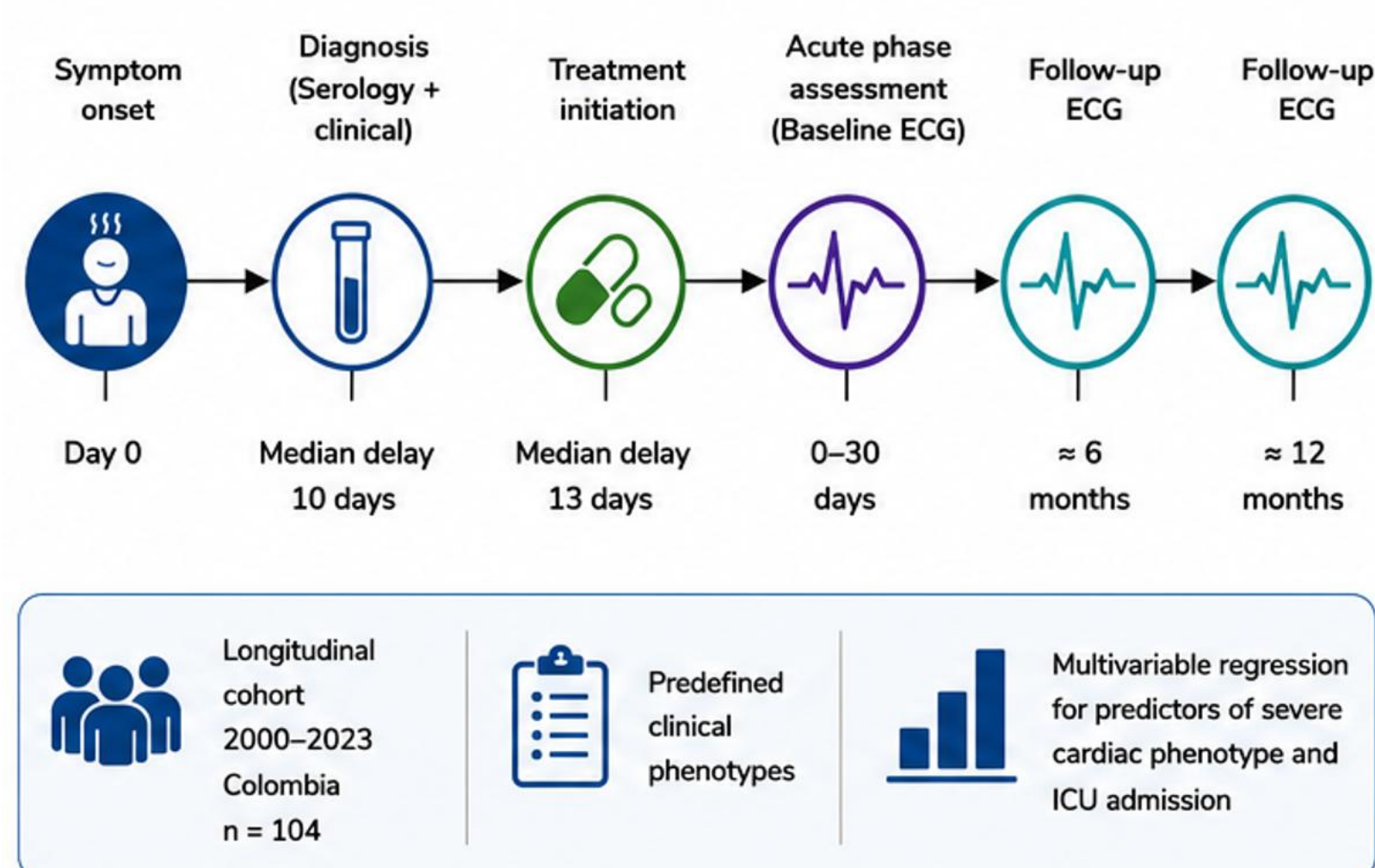
Figure 1. Clinical phenotypes of acute orally transmitted Chagas disease



METHOD

Longitudinal cohort of 104 outbreak-associated acute Chagas disease cases diagnosed in Colombia between 2000 and 2023. Serial electrocardiographic assessments were performed during the acute phase and during follow-up. Multivariable regression models evaluated predictors of severe cardiac phenotype and intensive care admission.

Figure 2. Study design and follow-up



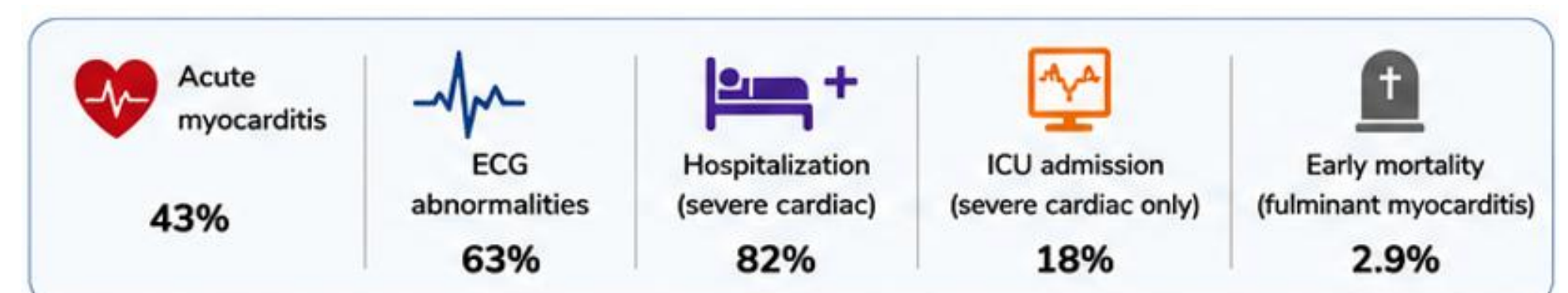
FUTURE WORK / REFERENCES

- Validate phenotype-based risk stratification tools.
- Assess long-term cardiac outcomes.
- Strengthen early outbreak detection and treatment.

1. Olivera MJ, Arévalo A, Hasslocher-Moreno AM. Long-Term Parasitological Clearance and Cardiac Progression in Trypanosoma cruzi Tci: A Phase-Stratified Cohort from Colombia. Trop Med Infect Dis. 2026;11(2):59. doi: 10.3390/tropicalmed11020059

RESULTS & DISCUSSION

Key findings



Diagnostic delay >10 days independently increased the odds of severe cardiac phenotype (aOR 2.4; 95% CI 1.1–5.3).

Figure 3. Clinical trajectories by phenotype

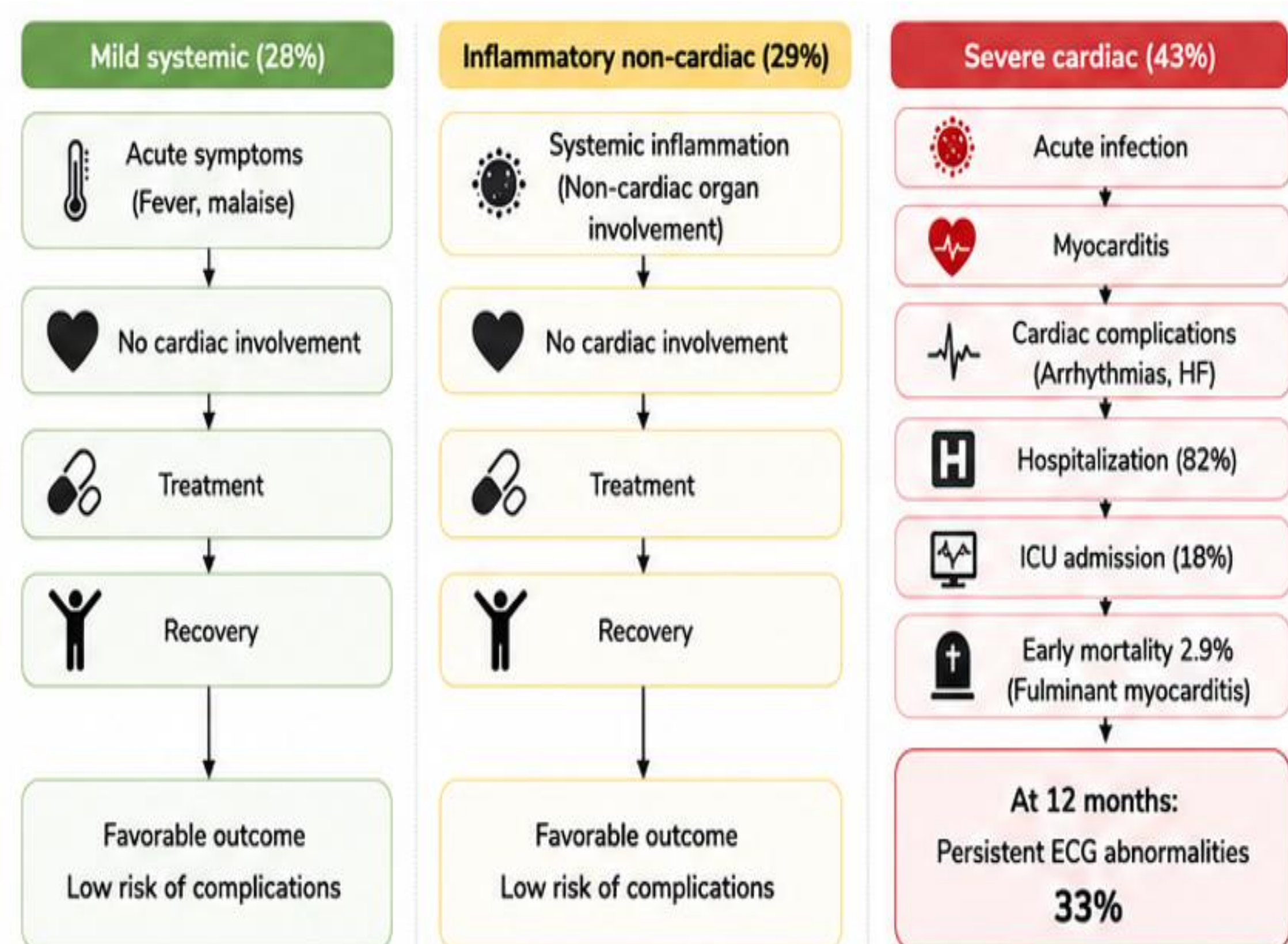
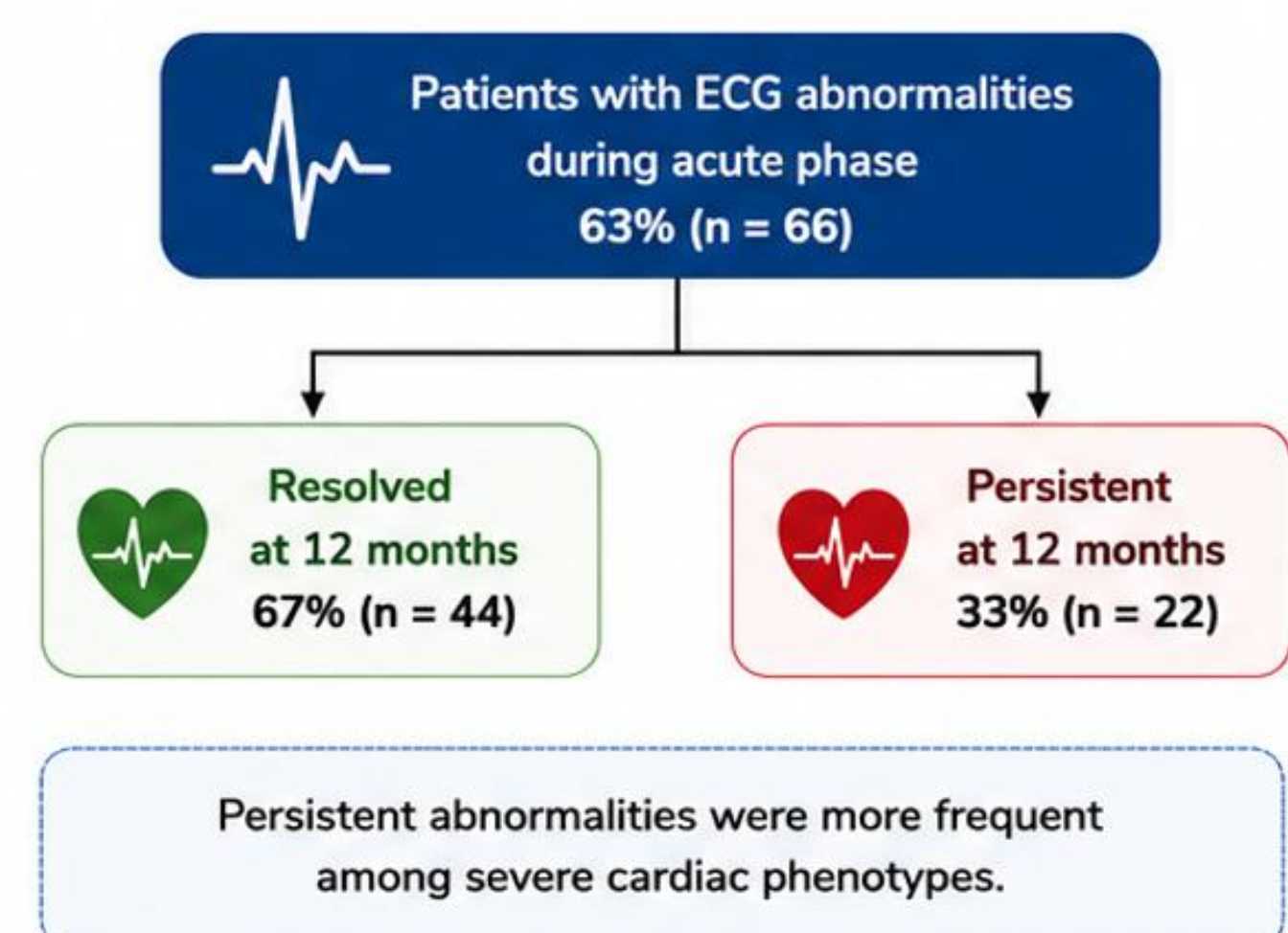


Figure 4. Evolution of electrocardiographic abnormalities at 12 months



Severe cardiac involvement defined a distinct high-risk trajectory characterized by hospitalization, intensive care admission, and persistent electrocardiographic abnormalities.

CONCLUSION

Orally transmitted acute Chagas disease follows distinct phenotype-defined trajectories with markedly different cardiac risks and recovery patterns. Early diagnosis and structured cardiac follow-up are essential to reduce morbidity in outbreak settings.