Should Physicians Be Aware of Rhythm Disturbances in Adults with Systemic Autoimmune Diseases and Anti-Ro52 Antibodies? A Cross-Sectional Study

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INTRODUCTION & AIM

The association between **anti-Ro/SSA antibodies** and the appearance of **cardiac rhythm disorders** in adults is discussed.

We aim to study this relationship, together with active treatments and comorbidities, and its impact on daily clinical practice in adults with systemic autoimmune diseases (SADs).

METHOD

Cross-sectional study in a tertiary hospital. Adults with a diagnosis of SAD were included. All of them underwent a 12-lead EKG.

Variables with a significant relationship with rhythm disorders in the bivariate analysis were included in a **multivariate logistic regression**

CONCLUSION

The presence of **anti-Ro52 antibodies in adult patients with SADs** is associated with an **increased risk of QTc prolongation**.

The EKG screening of patients with SAD, anti-Ro52 antibodies, and other risk factors, like diabetes mellitus or QT-prolonging drugs, seems advisable.

Those with baseline electrocardiogram abnormalities or additional risk factors should undergo electrocardiographic monitoring.

REFERENCES

Gamazo-Herrero J, et al. *Journal of Clinical Medicine*. 2024;13(12): 3510.

RESULTS & DISCUSSION

In total, **167 patients** were included. 84% were women and the mean age was 59 years (SD 12.8). The most frequent SAD was primary Sjögren's syndrome (34.8%), followed by systemic lupus erythematosus (24.6%) and rheumatoid arthritis (22.8%). Heart rhythm disorders were observed in 57 patients. A **statistically significant association** was found between **anti-Ro52 positivity and heart rhythm disturbances** (RR= 2.007 [1.197-3.366]).

|	Bivariate Analysis (p-value)	Multivariate Regression OR (CI 95%)
AV conduction disorders		
Chronic kidney disease	0.001	8.82 (1.42-54.67)*
β-blockers	0.029	2.47 (0.33-18.40)
Systemic lupus erythematosus	0.046	5.04 (1.01-24.27)*
Biologic drugs	0.011	15.08 (2.32-97.89)*
QTc prolongation		
Age	0.009	1.03 (1.00-1.07)
Diabetes mellitus	0.017	4.48 (1.11-17.12)*
Chronic kidney disease	0.036	1.56 (0.40-6.12)
Anti-Ro52+	0.003	6.05 (1.11-20.16)*
Anti-Ro52 strong-positivity	0.005	1.40 (0.48-4.05)

Bivariate and multivariate analysis for the development of any AV conduction disorder and QTc prolongation. Logistic regression.
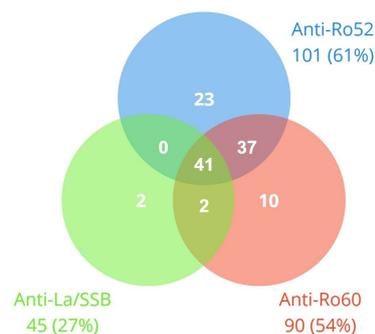
Simultaneous positivity for anti-Ro60, anti-Ro52, and anti-La/SSB antibodies (n = 115).
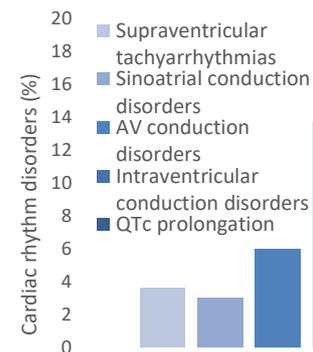
Cardiac rhythm disorders in the study (n = 57).
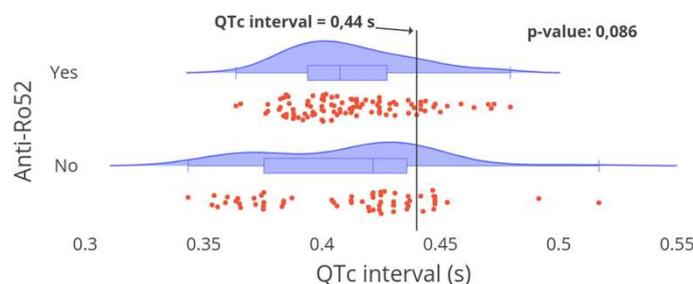
Population density according to QTc interval segregated by the presence of anti-Ro52.