C1q Antibody, IgG

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Systemic lupus erythematosus (SLE) is an autoimmune disease with multiorgan involvement. Approximately 37-45% of patients with SLE will develop lupus nephritis, which negatively impacts patient survival.[1] Testing for C1q antibodies assists in evaluating the risk of lupus nephritis development.[2]

Featured ARUP Testing

Anti-C1q Antibody, IgG 2007601

Method: Semi-Quantitative Enzyme-Linked Immunosorbent Assay

- Assess risk for lupus nephritis development in individuals with SLE
- Assess global SLE disease activity

Disease Overview

Physiology

C1q antibodies are associated with active glomerulonephritis in patients with SLE.[2] The presence of antibodies in patients with SLE indicates a higher risk for developing severe clinical manifestations of the disease. Specifically, the presence of C1q antibodies correlates with renal activity and flares, and the absence of antibodies indicates a low probability of lupus nephritis.[2]

Test Interpretation

Sensitivity/Specificity

- Clinical sensitivity and specificity vary based on disease population and disease state
- Analytical sensitivity and specificity vary based on disease population and disease state as well as testing platform

Results

- Negative: 0-19 units
- Equivocal: 20-39 units
- Positive: ≥40 units

Limitations

- Not all patients with lupus nephritis will be positive for C1q antibodies
- The presence of C1q antibodies is not specific for SLE

References

1. Albuquerque BC, Salles VB, Tajra RDP, et al. Outcome and Prognosis of Patients With Lupus Nephritis Submitted to Renal Transplantation. *Sci Rep*. 2019;9(1):11611.

2. Wener MH. Tests for circulating immune complexes. *Methods Mol Biol*. 2014;1134:47-57.

Related Information

Antinuclear Antibody (ANA) With HEp-2 Substrate
Mixed Connective Tissue Disease - MCTD
Systemic Lupus Erythematosus - SLE