Anti Citrullinated Protein – [Serum] Analysis

Objective

The objective of this test is to detect anti-citrullinated protein antibodies (ACPA) in serum. ACPA testing is primarily used in the diagnosis of rheumatoid arthritis (RA) and may also help predict disease severity and progression.

Materials and Methods

Materials:
- Serum sample from patient
- ELISA kit for anti-citrullinated protein antibodies (anti-CCP)
- Microplate reader and washing equipment
- Standard laboratory equipment (pipettes, centrifuge)

Methods:
1. Sample Collection: Collect venous blood and separate serum via centrifugation.
2. Antibody Detection: Perform ELISA to detect and quantify anti-CCP antibodies.
3. Interpretation: Compare results against established reference values; positive anti-CCP strongly supports rheumatoid arthritis diagnosis.
4. Quality Control: Utilize positive and negative controls provided in the assay kit.
5. Correlation: Combine with clinical symptoms and other markers (e.g., rheumatoid factor) for comprehensive diagnosis.

Results

- Negative: < 20 units (no anti-CCP antibodies detected)
- Positive: ≥ 20 units (suggestive of rheumatoid arthritis)
- High titres: Associated with severe and erosive forms of RA

Conclusion

Anti-citrullinated protein antibody testing is a highly specific marker for rheumatoid arthritis and assists in early diagnosis and prognosis assessment. Clinical correlation with imaging and other serological tests is recommended for comprehensive management.