

**Dr. Vinay Chopra**  
 MD (Pathology & Microbiology)  
 Chairman & Consultant Pathologist

**Dr. Yugam Chopra**  
 MD (Pathology)  
 CEO & Consultant Pathologist

|                       |  |                          |                        |
|-----------------------|--|--------------------------|------------------------|
| <b>NAME</b>           | : Mrs. SAROJ RANI JAIN                 | <b>PATIENT ID</b>        | : 1719762              |
| <b>AGE/ GENDER</b>    | : 77 YRS/FEMALE                        | <b>REG. NO./LAB NO.</b>  | : 012501090020         |
| <b>COLLECTED BY</b>   | : SURJESH                              | <b>REGISTRATION DATE</b> | : 09/Jan/2025 10:08 AM |
| <b>REFERRED BY</b>    | : CENTRAL PHOENIX CLUB (AMBALA CANTT)  | <b>COLLECTION DATE</b>   | : 09/Jan/2025 10:20AM  |
| <b>BARCODE NO.</b>    | : 01523662                             | <b>REPORTING DATE</b>    | : 09/Jan/2025 11:17AM  |
| <b>CLIENT CODE.</b>   | : KOS DIAGNOSTIC LAB                   |                          |                        |
| <b>CLIENT ADDRESS</b> | : 6349/1, NICHOLSON ROAD, AMBALA CANTT |                          |                        |

| Test Name | Value | Unit | Biological Reference interval |
|-----------|-------|------|-------------------------------|
|-----------|-------|------|-------------------------------|

## CLINICAL CHEMISTRY/BIOCHEMISTRY

### URIC ACID

|   |      |       |             |
|---|------|-------|-------------|
| URIC ACID: SERUM<br>by URICASE - OXIDASE PEROXIDASE | 4.79 | mg/dL | 2.50 - 6.80 |
|---|------|-------|-------------|

#### INTERPRETATION:-

1. GOUT occurs when high levels of Uric Acid in the blood cause crystals to form & accumulate around a joint.  
 2. Uric Acid is the end product of purine metabolism. Uric acid is excreted to a large degree by the kidneys and to a smaller degree in the intestinal tract by microbial degradation.

#### INCREASED:-

##### (A).DUE TO INCREASED PRODUCTION:-

1. Idiopathic primary gout.
2. Excessive dietary purines (organ meats, legumes, anchovies, etc).
3. Cytolytic treatment of malignancies especially leukemias & lymphomas.
4. Polycythemia vera & myeloid metaplasia.
5. Psoriasis.
6. Sickle cell anaemia etc.

##### (B).DUE TO DECREASED EXCRETION (BY KIDNEYS)

1. Alcohol ingestion.
2. Thiazide diuretics.
3. Lactic acidosis.
4. Aspirin ingestion (less than 2 grams per day).
5. Diabetic ketoacidosis or starvation.
6. Renal failure due to any cause etc.

#### DECREASED:-

##### (A).DUE TO DIETARY DEFICIENCY

1. Dietary deficiency of Zinc, Iron and molybdenum.
2. Fanconi syndrome & Wilson's disease.
3. Multiple sclerosis.
4. Syndrome of inappropriate antidiuretic hormone (SIADH) secretion & low purine diet etc.

##### (B).DUE TO INCREASED EXCRETION

1. Drugs:- Probenecid, sulphinpyrazone, aspirin doses (more than 4 grams per day), corticosteroids and ACTH, anti-coagulants and estrogens etc.



  
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### IMMUNOPATHOLOGY/SEROLOGY C-REACTIVE PROTEIN (CRP)

|   |      |      |           |
|---|------|------|-----------|
| C-REACTIVE PROTEIN (CRP) QUANTITATIVE:<br>SERUM<br>by NEPHLOMETRY | 1.06 | mg/L | 0.0 - 6.0 |
|---|------|------|-----------|

**INTERPRETATION:**

1. C-reactive protein (CRP) is one of the most sensitive acute-phase reactants for inflammation.
2. CRP levels can increase dramatically (100-fold or more) after severe trauma, bacterial infection, inflammation, surgery, or neoplastic proliferation.
3. CRP levels (Quantitative) has been used to assess activity of inflammatory disease, to detect infections after surgery, to detect transplant rejection, and to monitor these inflammatory processes.
4. As compared to ESR, CRP shows an earlier rise in inflammatory disorders which begins in 4-6 hrs, the intensity of the rise being higher than ESR and the recovery being earlier than ESR. Unlike ESR, CRP levels are not influenced by hematologic conditions like Anemia, Polycythemia etc.,
5. Elevated values are consistent with an acute inflammatory process.

- NOTE:**
1. Elevated C-reactive protein (CRP) values are nonspecific and should not be interpreted without a complete clinical history.
  2. Oral contraceptives may increase CRP levels.



  
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### RHEUMATOID FACTOR (RA): QUANTITATIVE - SERUM

|   |      |       |   |
|---|------|-------|---|
| RHEUMATOID (RA) FACTOR QUANTITATIVE:<br>SERUM<br>by NEPHLOMETRY | 8.58 | IU/mL | NEGATIVE: < 18.0<br>BORDERLINE: 18.0 - 25.0<br>POSITIVE: > 25.0 |
|---|------|-------|---|

#### INTERPRETATION:-

#### RHEUMATOID FACTOR (RA):

1. Rheumatoid factors (RF) are antibodies that are directed against the Fc fragment of IgG altered in its tertiary structure.
2. Over 75% of patients with rheumatoid arthritis (RA) have an IgM antibody to IgG immunoglobulin. This autoantibody (RF) is diagnostically useful although it may not be etiologically related to RA.
3. Inflammatory Markers such as ESR & C-Reactive protein (CRP) are normal in about 60 % of patients with positive RA.
4. The titer of RF correlates poorly with disease activity, but those patients with high titers tend to have more severe disease course.
5. The test is useful for diagnosis and prognosis of rheumatoid arthritis.

#### RHEUMATOID ARTHRITIS:

1. Rheumatoid Arthritis is a systemic autoimmune disease that is multi-functional in origin and is characterized by chronic inflammation of the membrane lining (synovium) joints which leads to progressive joint destruction and in most cases to disability and reduction of quality life.
2. The disease spreads from small to large joints, with greatest damage in early phase.
3. The diagnosis of RA is primarily based on clinical, radiological & immunological features. The most frequent serological test is the measurement of RA factor.

#### CAUTION (FALSE POSTIVE):-

1. RA factor is not specific for Rheumatoid arthritis, as it is often present in healthy individuals with other autoimmune diseases and chronic infections.
2. Non rheumatoid and rheumatoid arthritis (RA) populations are not clearly separate with regard to the presence of rheumatoid factor (RF) (15% of RA patients have a nonreactive titer and 8% of nonrheumatoid patients have a positive titer).
3. Patients with various nonrheumatoid diseases characterized by chronic inflammation may have positive tests for RF. These diseases include systemic lupus erythematosus, polymyositis, tuberculosis, syphilis, viral hepatitis, infectious mononucleosis, and influenza.
4. Anti-CCP have been discovered in joints of patients with RA, but not in other form of joint disease. Anti-CCP2 is HIGHLY SENSITIVE (71%) & more specific (98%) than RA factor.
5. Upto 30 % of patients with Seronegative Rheumatoid arthritis also show Anti-CCP antibodies.
6. The positive predictive value of Anti-CCP antibodies for Rheumatoid Arthritis is far greater than Rheumatoid factor.

\*\*\* End Of Report \*\*\*





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