

**LABORATORY TEST REPORT**

Name	: Mr. SANTOSH PRASAD		
Sample ID	: A1572766		
Age/Gender	: 45 Years/Male	Reg. No	: 0472412050019
Referred by	: Dr. A K DUBEY	SPP Code	: SPI-BH-002
Referring Customer	: A LAB	Collected On	: 05-Dec-2024 12:00 PM
Primary Sample	: Whole Blood	Received On	: 05-Dec-2024 05:44 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 05-Dec-2024 06:49 PM
Client Address	:	Report Status	: Final Report


**HAEMATOLOGY**

Test Name	Results	Units	Biological Reference Interval
<b><u>COMPLETE BLOOD COUNT (CBC)</u></b>			
Haemoglobin (Hb) <small>(Method: Cymmeth Method)</small>	<b>8.0</b>	g/dL	13-17
RBC Count <small>(Method: Cell Impedance)</small>	<b>3.45</b>	10 <sup>12</sup> /L	4.5-5.5
Haematocrit (HCT) <small>(Method: Calculated)</small>	<b>25.2</b>	%	40-50
MCV <small>(Method: Calculated)</small>	<b>73</b>	fl	81-101
MCH <small>(Method: Calculated)</small>	<b>23.2</b>	pg	27-32
MCHC <small>(Method: Calculated)</small>	<b>31.8</b>	g/dL	32.5-34.5
RDW-CV <small>(Method: Calculated)</small>	<b>20.0</b>	%	11.6-14.0
Platelet Count (PLT) <small>(Method: Cell Impedance)</small>	200	10 <sup>9</sup> /L	150-410
Total WBC Count <small>(Method: Impedance)</small>	7.9	10 <sup>9</sup> /L	4.0-10.0
Neutrophils <small>(Method: Cell Impedance)</small>	<b>80</b>	%	40-70
Absolute Neutrophils Count <small>(Method: Impedance)</small>	6.32	10 <sup>9</sup> /L	2.0-7.0
Lymphocytes <small>(Method: Cell Impedance)</small>	<b>14</b>	%	20-40
Absolute Lymphocyte Count <small>(Method: Impedance)</small>	1.11	10 <sup>9</sup> /L	1.0-3.0
Monocytes <small>(Method: Microscopy)</small>	04	%	2-10
Absolute Monocyte Count <small>(Method: Calculated)</small>	0.32	10 <sup>9</sup> /L	0.2-1.0
Eosinophils <small>(Method: Microscopy)</small>	02	%	1-6
Absolute Eosinophils Count <small>(Method: Calculated)</small>	0.16	10 <sup>9</sup> /L	0.02-0.5
Basophils <small>(Method: Microscopy)</small>	00	%	1-2
Absolute Basophil ICount <small>(Method: Calculated)</small>	0.00	10 <sup>9</sup> /L	0.0-0.3
<b><u>Morphology</u></b>			



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### CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Biological Reference Interval
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Aspartate Aminotransferase (AST/SGOT)	28	U/L	15-37
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(Method: IFCC UV Assay)

#### Interpretation:

AST is an enzyme found in high levels in the liver, heart, and muscles. It is also found in lesser amounts in other tissues. An enzyme is a protein that causes a specific chemical change in the body.

Injury to the liver results in release of AST into the blood.

This test is mainly done along with other tests (such as ALT, ALP, and bilirubin) to diagnose and monitor liver disease.

An increased AST level is often a sign of liver disease. Liver disease is even more likely when the levels of substances checked by other liver blood tests have also increased.

**An increased AST level may be due to any of the following:**

- Scarring of the liver (cirrhosis)
- Death of liver tissue
- Heart attack
- Too much iron in the body (hemochromatosis)
- Swollen and inflamed liver (hepatitis)
- Lack of blood flow to the liver (liver ischemia)

**AST level may also increase after:**

- Burns (deep)
- Heart procedures
- Seizure
- Surgery

Alanine Aminotransferase (ALT/SGPT)	16	U/L	0-55
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(Method: IFCC with out (P-5-P))

#### Interpretation :

- Alanine aminotransferase (ALT) is present primarily in liver cells. In viral hepatitis and other forms of liver disease associated with hepatic necrosis, serum ALT is elevated even before the clinical signs and symptoms of the disease appear. Although serum levels of both aspartate aminotransferase (AST) and ALT become elevated whenever disease processes affect liver cell integrity,
- ALT is a more liver-specific enzyme. Serum elevations of ALT are rarely observed in conditions other than parenchymal liver disease. Moreover, the elevation of ALT activity persists longer than does AST activity.
- Elevated alanine aminotransferase (ALT) values are seen in parenchymal liver diseases characterized by a destruction of hepatocytes. Values are typically at least 10 times above the normal range. Levels may reach values as high as 100 times the upper reference limit, although 20- to 50-fold elevations are most frequently encountered. In infectious hepatitis and other inflammatory conditions affecting the liver.



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### CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Biological Reference Interval
Albumin (Method: Bromocresol Green (BCG) )	3.8	g/dL	3.4-5.0

#### Interpretation :

Lower-than-normal level of serum albumin may be a sign of:

- Kidney diseases
- Liver disease (for example, hepatitis, or cirrhosis that may cause ascites)Decreased blood albumin may occur when your body does not get or absorb enough nutrients, such as with:
- After weight-loss surgery
- Crohn disease (inflammation of the digestive tract)
- Low-protein diets
- Increased blood albumin may be due to:
- Dehydration
- High protein diet
- Having a tourniquet on for a long time when giving a blood sample

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



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### CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Biological Reference Interval
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Calcium **8.1** mg/dL 8.5-10.1  
(Method: Arsenazo)

#### Comments:

- Calcium in the body is found mainly in the bones (approximately 99%). In serum, Calcium exists in a free ionised form and in bound form (with Albumin). Hence, a decrease in Albumin causes lower Calcium levels and vice-versa.
- Calcium levels in serum depend on the Parathyroid Hormone.
- Increased Calcium levels are found in Bone tumors, Hyperparathyroidism. decreased levels are found in Hypoparathyroidism, renal failure, Rickets.

Phosphorus(PO<sub>4</sub>) **4.61** mg/dL 2.5-4.9  
(Method: Phosphomolybdate UV)

#### Interpretation:

- This will give an idea of renal and bone diseases.

#### Increased Phosphorus Or Hyperphosphatemia:

- Renal diseases with increased blood urea ( BUN) and creatinine.
- Hypoparathyroidism with raised phosphate and decreased calcium. But renal function will be normal.
- Liver diseases and cirrhosis.
- Acromegaly.
- Increased dietary intake.
- Sarcoidosis.
- Acidosis
- Hemolytic anemia.

#### Decreased Level Of Phosphorus Or Hypophosphatemia:

- Decreased intestinal absorption.
- Rickets ( Vit.D deficiency )
- Vomiting and severe diarrhea
- Severe malnutrition and malabsorption.
- Acute alcoholism.

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### CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Biological Reference Interval
<b>Kidney Profile-KFT</b>			
<b>Creatinine</b> <small>(Method: Jaffes Kinetic)</small>	<b>6.12</b>	mg/dL	0.70-1.30
<b>Urea-Serum</b> <small>(Method: Calculated)</small>	<b>88.3</b>	mg/dL	12.8-42.8
<b>Blood Urea Nitrogen (BUN)</b> <small>(Method: Calculated)</small>	<b>41.26</b>	mg/dL	7.0-18.0
<b>BUN / Creatinine Ratio</b>	6.74		6 - 22
<b>Uric Acid</b> <small>(Method: Uricase)</small>	5.4	mg/dL	3.5-7.2
<b>Sodium</b> <small>(Method: ISE Direct)</small>	140.0	mmol/L	135-150
<b>Potassium</b> <small>(Method: ISE Direct)</small>	3.99	mmol/L	3.5-5.0
<b>Chloride</b> <small>(Method: ISE Direct)</small>	105.0	mmol/L	94-110

#### Interpretation:

- The kidneys, located in the retroperitoneal space in the abdomen, are vital for patient health. They process several hundred liters of fluid a day and remove around two liters of waste products from the bloodstream. The volume of fluid that passes through the kidneys each minute is closely linked to cardiac output. The kidneys maintain the body's balance of water and concentration of minerals such as sodium, potassium, and phosphorus in blood and remove waste by-products from the blood after digestion, muscle activity and exposure to chemicals or medications. They also produce renin which helps regulate blood pressure, produce erythropoietin which stimulates red blood cell production, and produce an active form of vitamin D, needed for bone health.

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

