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

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

NAME	**: Mr. SHISH RAM**		
AGE/ GENDER	: 74 YRS/MALE	**PATIENT ID**	: 1576234
COLLECTED BY	: SURJESH	**REG. NO./LAB NO.**	**: 012408090049**
REFERRED BY	:	**REGISTRATION DATE**	: 09/Aug/2024 07:16 PM
BARCODE NO.	: 01514797	**COLLECTION DATE**	: 09/Aug/2024 07:17PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 09/Aug/2024 09:47PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
CLINICAL CHEMISTRY/BIOCHEMISTRY			
BLOOD UREA NITROGEN (BUN): SERUM			
UREA: SERUM *by SPECTROPHOTOMETRY*	**83.75^{H}**	**mg/dL**	**10.00 - 50.00**
BLOOD UREA NITROGEN (BUN): SERUM *by SPECTROPHOTOMETRY*	**39.14^{H}**	**mg/dL**	**7.0 - 25.0**

Rechecked

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Test Name	Value	Unit	Biological Reference interval
CREATININE			
CREATININE: SERUM *by ENZYMATIC, SPECTROPHOTOMETRY*	**1.51^{H}**	**mg/dL**	**0.40 - 1.40**
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Test Name	Value	Unit	Biological Reference interval
CALCIUM			
CALCIUM: SERUM *by ARSENAZO III, SPECTROPHOTOMETRY*	**8.29**^{L}	**mg/dL**	**8.50 - 10.60**

INTERPRETATION:-

1.Serum calcium (total) estimation is used for the diagnosis and monitoring of a wide range of disorders including diseases of bone, kidney, parathyroid gland, or gastrointestinal tract.
2. Calcium levels may also reflect abnormal vitamin D or protein levels.
3.The calcium content of an adult is somewhat over 1 kg (about 2% of the body weight).Of this, 99% is present as calcium hydroxyapatite in bones and <1% is present in the extra-osseous intracellular space or extracellular space (ECS).
4. In serum, calcium is bound to a considerable extent to proteins (approximately 40%), 10% is in the form of inorganic complexes, and 50% is present as free or ionized calcium.
NOTE:-Calcium ions affect the contractility of the heart and the skeletal musculature, and are essential for the function of the nervous system. In addition, calcium ions play an important role in blood clotting and bone mineralization.

HYPOCALCEMIA (LOW CALCIUM LEVELS) CAUSES :-

1.Due to the absence or impaired function of the parathyroid glands or impaired vitamin-D synthesis.
2. Chronic renal failure is also frequently associated with hypocalcemia due to decreased vitamin-D synthesis as well as hyperphosphatemia and skeletal resistance to the action of parathyroid hormone (PTH).
3.***NOTE:-*** A characteristic symptom of hypocalcemia is latent or manifest tetany and osteomalacia.

HYPERCALCEMIA (INCREASE CALCIUM LEVELS) CAUSES:-

1.Increased mobilization of calcium from the skeletal system or increased intestinal absorption.
2.Primary hyperparathyroidism (pHPT)
3.Bone metastasis of carcinoma of the breast, prostate, thyroid gland, or lung.
NOTE:-Severe hypercalcemia may result in cardiac arrhythmia.

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Test Name	Value	Unit	Biological Reference interval
ELECTROLYTES COMPLETE PROFILE			
SODIUM: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	**131.7L**	**mmol/L**	**135.0 - 150.0**
POTASSIUM: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	4.98	mmol/L	3.50 - 5.00
CHLORIDE: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	98.78	mmol/L	90.0 - 110.0

INTERPRETATION:-

SODIUM:-

Sodium is the major cation of extra-cellular fluid. Its primary function in the body is to chemically maintain osmotic pressure & acid base balance & to transmit nerve impulse.

HYPONATREMIA (LOW SODIUM LEVEL) CAUSES:-

1. Low sodium intake.
2. Sodium loss due to diarrhea & vomiting with adequate water and iadequate salt replacement.
3. Diuretics abuses.
4. Salt loosing nephropathy.
5. Metabolic acidosis.
6. Adrenocortical issuficiency .
7. Hepatic failure.

HYPERNATREMIA (INCREASED SODIUM LEVEL) CAUSES:-

1. Hyperapnea (Prolonged)
2. Diabetes insipidus
3. Diabetic acidosis
4. Cushings syndrome
5. Dehydration

POTASSIUM:-

Potassium is the major cation in the intracellular fluid. 90% of potassium is concentrated within the cells. When cells are damaged, potassium is released in the blood.

HYPOKALEMIA (LOW POTASSIUM LEVELS):-

1. Diarrhoea, vomiting & malabsorption.
2. Severe Burns.
3. Increased Secretions of Aldosterone

HYPERKALEMIA (INCREASED POTASSIUM LEVELS):-

1. Oliguria
2. Renal failure or Shock
3. Respiratory acidosis

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Test Name	Value	Unit	Biological Reference interval
4.Hemolysis of blood			

*** End Of Report ***

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