

292/05, Tulsidas Marg, Basement Chowk, Lucknow-226 003

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CMO Reg. No. RMEE 2445133 NABL Reg. No. MC-2491 Certificate No. MIS-2023-0218

Patient Name : Ms. MAYA DEVI Visit No : CHA250037473

Age/Gender : 63 Y/F Registration ON : 02/Mar/2025 09:16AM Sample Collected ON Lab No : 10134768 : 02/Mar/2025 09:18AM Referred By Sample Received ON : Dr.DEEP SHIKHA GUPTA : 02/Mar/2025 09:36AM Refer Lab/Hosp : CGHS (BILLING) Report Generated ON 02/Mar/2025 11:23AM

Doctor Advice : BOTH KNEE AP LAT, TSH, VIT B12, MAGNESIUM, 25 OH vit. D, ALK PHOS, PTH (Serum), PHOS, CALCIUM



Test Name	Result	Unit	Bio. Ref. Range	Method
SERUM CALCIUM				
CALCIUM	10.3	mg/dl	8.8 - 10.2	dapta / arsenazo III
PHOSPHORUS				
Phosphorus Serum	3.50	mg/dl	2.68 - 4.5	Phosphomolybdate

#### INTERPRETATION:

P.R.

#### LIMITATIONS:

-Interferences: bilirubin (up to 20 mg/dL) hemolysis (haemoglobin up to 1000 mg/dL) and lipemia (triglycerides up to 1000 mg/dL) do not interface. Other drugs and substances may interface.

-Clinical diagnosis should no be made on the findings of a single test result, but should integrate both clinical laboratory data.

MAGNESIUM				
SERUM MAGNESIUM	2.21	mg/dl	1.70 - 2.70	Xylidyl blue

#### **COMMENTS:**

- -Magnesium is primarily an intracellular ion associated with gastrointestinal (GI) absorption and renal excretion. It is the fourth most abundant cation in the body and is second to potassium within cell. It is stored in bones, skeletal muscles and other cells and only a part in extracellular fluid. Mg<sup>2+</sup> is a cofactor of many enzyme system concerned with cell respiration, glycolysis, transmembrane transport of other cations such as calcium and sodium. The activity of Na-K-ATPase pump depends on magnesium.

  -Assessment of magnesium level is used for the diagnosis and monitoring of hypomagnesemia or hypermagnesemia.

  -Magnesium deficiency leads to impairment of neuromuscular functions resulting in hyperirritability, tetany, convulsion or
- -Assessment of magnesium level is used for the diagnosis and monitoring of hypomagnesemia or hypermagnesemia.
  -Magnesium deficiency leads to impairment of neuromuscular functions resulting in hyperirritability, tetany, convulsion or electrocardiographic changes. It is also associated with cardiovascular diseases such as hypertension, myocardial infarction, cardiac dysrhythmias, coronary vasopasm & premature atherosclerosis. Diabetic ketoacidosis, chronic alcoholism, malnutrition, lactation malabsorption are other conditions linked with it.
- -Increased serum magnesium concentration has been observed in dehydration, Addison's disease, rhabdomyolysis or acute or chronic renal failure.

PTH (Serum)				
PARA THYROID HORMONE	24.60	pg/ml	15 - 65	CLIA



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<sup>-</sup>Approximately 80% of the phosphorus in the human body is found in the calcium phosphate salts which make up the inorganic substance of bone. The remainder is involved in the esterification of carbohydrate metabolism intermediaries and is also found as component of phospholipids. Phosphoproteins, nucleic acids and nucleotides.

<sup>-</sup>Hypophosphatemia can be caused by shift of phosphate from extracellular to intracellular spaces, increased renal loss (renal tubular defects, hyperparathyroidism) or gastrointestinal loss (diarrhea, vomiting) and decreased intestinal absorption.



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BOTH KNEE AP LAT, TSH, VIT B12, MAGNESIUM, 25 OH vit. D, ALK PHOS, PTH (Serum), PHOS, CALCIUM Doctor Advice :

Test Name	Result	Unit	Bio. Ref. Range	Method	
25 OH vit. D					
25 Hydroxy Vitamin D	26.84	ng/ml		ECLIA	

Deficiency < 10 Insufficiency 10 - 30 Sufficiency 30 - 100 Toxicity > 100

DONE BY: ELECTROCHEMILUMINESCENCE IMMUNOASSAY(Cobas e 411, Unicel DxI600, vitros ECI)

**VITAMIN B12** VITAMIN B12 282 CLIA pg/mL

> 180 - 814 Normal 145 - 180 Intermediate 145.0 Deficient pg/ml

## Summary:-

Nutritional & macrocytic anemias can be caused by a deficiency of vitamin B12. This deficiency can result from diets devoid of meat & bacterial products, from alcoholism or from structural / functional damage to digestive or absorpative processes. Malabsorption is the major cause of this deficiency.

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DR. NISHANT SHARMA DR. SHADAB **PATHOLOGIST PATHOLOGIST** 



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Test Name	Result	Unit	Bio. Ref. Range	Method
ALK PHOS				
ALK PHOS	98.10	U/L	30 - 120	PNPP, AMP Buffer

## INTERPRETATION:

- Alkaline phosphatase is an enzyme found in your bloodstream. ALP helps break down proteins in the body and exists in different forms, depending on where it originates. Liver is one of the main sources of ALP, but some is also made in bones, intestines, pancreas, and kidneys. In pregnant women, ALP is made in the placenta.
- Higher than normal levels of ALP in blood may indicate a problem with liver or gallbladder. This could include hepatitis (liver inflammation), cirrhosis (liver scarring), liver cancer, gallstones, or a blockage in bile ducts. High levels may also indicate an issue related to the bones such as rickets, Paget's disease, bone cancer, or an overactive parathyroid gland. In rare cases, high ALP levels can indicate heart failure, kidney cancer, other cancer, mononucleosis, or bacterial infection. Having lower than normal ALP levels in blood is rare, but can indicate malnutrition, which could be caused by celiac disease or a deficiency in certain vitamins and minerals.

TSH							
TSH	4	4.60	ulU/ml	0.47	' - 4.52	ECLIA	

### Note

P.R.

- (1) Patients having low T3 & T4 levels but high TSH levels suffer from primary hypothyroidism, cretinism, juvenile mysedema or autoimmune disorders.
- (2) Patients having low T3 & T4 levels but high TSH levels suffer from grave~s disease, toxic adenoma or sub-acute thyroiditis.
- (3) Patients having either low or normal T3 & T4 levels but low TSH values suffer from iodine deficiency or secondary hypothyroidism.
- (4) Patients having high T3 & T4 levels but normal TSH levels may suffer from toxic multinodular goitre. This condition is mostly asymptomatic and may cause transient hyperthyroidism but no persistent symptoms.
- (5) Patient with high or normal T3 & T4 levels and low or normal TSH levels suffer either from T3 toxicosis or T4 Toxicosis respectively.
- (6) In patients with non thyroidal illness abnormal test results are not necessarily indicative of thyroidism but may be due to adaptation to the cacabolic state and may revert tonormal when the patient recovers.
- (7) There are many drugs for eg.Glucocorticoids ,dopamine,Lithium,iodides ,oral radiographic dyes,ets.Which may affect the thyroid function tests.
- (8) Generally when total T3& T4 results are indecisive then Free T3 & Free T4 test are recommended for further confirmation along with
- (1 Beckman DxI-600 2. ELECTRO-CHEMILUMINISCENCE TECHINIQUE BY ELECSYSYS -E411)

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





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DR. NISHANT SHARMA DR. SHADAB

**PATHOLOGIST** 

PATHOLOGIST

Dr. SYED SAIF AHMAD MD (MICROBIOLOGY)

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# SKIAGRAM BOTH KNEE AP AND LATERAL

- Articular surfaces show small osteophytosis.
- Joint spaces are maintained.
- Tibial spines is prominent on right side.
- Multiple calcified loose bodies are seen in posterior to right knee joint.

#### **OPINION:**

• EARLY OSTEOARTHRITIC CHANGES BOTH KNEE JOINTS.

Clinical correlation is necessary.

[DR. RAJESH KUMAR SHARMA, MD]

Transcribed by Gausiya

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

