

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

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

<b>NAME</b>	: Mrs. RITIKA	<b>PATIENT ID</b>	: 1570402
<b>AGE/ GENDER</b>	: 43 YRS/FEMALE	<b>REG. NO./LAB NO.</b>	: <b>012408040059</b>
<b>COLLECTED BY</b>	:	<b>REGISTRATION DATE</b>	: 04/Aug/2024 01:23 PM
<b>REFERRED BY</b>	:	<b>COLLECTION DATE</b>	: 04/Aug/2024 01:25PM
<b>BARCODE NO.</b>	: 01514448	<b>REPORTING DATE</b>	: 04/Aug/2024 02:58PM
<b>CLIENT CODE.</b>	: KOS DIAGNOSTIC LAB		
<b>CLIENT ADDRESS</b>	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
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**VITAMINS**

**VITAMIN B12/COBALAMIN**


VITAMIN B12/COBALAMIN: SERUM 220.1 pg/mL 190.0 - 890.0  
 by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)


**INTERPRETATION:-**

INCREASED VITAMIN B12	DECREASED VITAMIN B12
1. Ingestion of Vitamin C	1. Pregnancy
2. Ingestion of Estrogen	2. DRUGS: Aspirin, Anti-convulsants, Colchicine
3. Ingestion of Vitamin A	3. Ethanol Ingestion
4. Hepatocellular injury	4. Contraceptive Hormones
5. Myeloproliferative disorder	5. Haemodialysis
6. Uremia	6. Multiple Myeloma

- Vitamin B12 (cobalamin) is necessary for hematopoiesis and normal neuronal function.
  - In humans, it is obtained only from animal proteins and requires intrinsic factor (IF) for absorption.
  - The body uses its vitamin B12 stores very economically, reabsorbing vitamin B12 from the ileum and returning it to the liver; very little is excreted.
  - Vitamin B12 deficiency may be due to lack of IF secretion by gastric mucosa (eg, gastrectomy, gastric atrophy) or intestinal malabsorption (eg, ileal resection, small intestinal diseases).
  - Vitamin B12 deficiency frequently causes macrocytic anemia, glossitis, peripheral neuropathy, weakness, hyperreflexia, ataxia, loss of proprioception, poor coordination, and affective behavioral changes. These manifestations may occur in any combination; many patients have the neurologic defects without macrocytic anemia.
  - Serum methylmalonic acid and homocysteine levels are also elevated in vitamin B12 deficiency states.
  - Follow-up testing for antibodies to intrinsic factor (IF) is recommended to identify this potential cause of vitamin B12 malabsorption.
- NOTE:** A normal serum concentration of vitamin B12 does not rule out tissue deficiency of vitamin B12. The most sensitive test for vitamin B12 deficiency at the cellular level is the assay for MMA. If clinical symptoms suggest deficiency, measurement of MMA and homocysteine should be considered, even if serum vitamin B12 concentrations are normal.



  
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**CLINICAL PATHOLOGY**

**URINE ROUTINE & MICROSCOPIC EXAMINATION**

**PHYSICAL EXAMINATION**

QUANTITY RECEIVED	10	ml	
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
COLOUR	AMBER YELLOW		PALE YELLOW
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
TRANSPARANCY	HAZY		CLEAR
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
SPECIFIC GRAVITY	1.01		1.002 - 1.030
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			

**CHEMICAL EXAMINATION**

REACTION	ACIDIC		
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
PROTEIN	Negative		NEGATIVE (-ve)
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
SUGAR	Negative		NEGATIVE (-ve)
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
pH	6		5.0 - 7.5
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
BILIRUBIN	Negative		NEGATIVE (-ve)
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
NITRITE	Negative		NEGATIVE (-ve)
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY.</i>			
UROBILINOGEN	Normal	EU/dL	0.2 - 1.0
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
KETONE BODIES	Negative		NEGATIVE (-ve)
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
<b>BLOOD</b>	<b>1+</b>		<b>NEGATIVE (-ve)</b>
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			
ASCORBIC ACID	NEGATIVE (-ve)		NEGATIVE (-ve)
<i>by DIP STICK/REFLECTANCE SPECTROPHOTOMETRY</i>			

**MICROSCOPIC EXAMINATION**



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RED BLOOD CELLS (RBCs) <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	4-6	/HPF	0 - 3
PUS CELLS <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	6-8	/HPF	0 - 5
EPITHELIAL CELLS <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	4-5	/HPF	ABSENT
CRYSTALS <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	NEGATIVE (-ve)		NEGATIVE (-ve)
CASTS <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	NEGATIVE (-ve)		NEGATIVE (-ve)
BACTERIA <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	NEGATIVE (-ve)		NEGATIVE (-ve)
OTHERS <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	NEGATIVE (-ve)		NEGATIVE (-ve)
TRICHOMONAS VAGINALIS (PROTOZOA) <i>by MICROSCOPY ON CENTRIFUGED URINARY SEDIMENT</i>	ABSENT		ABSENT

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



  
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