

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

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

<b>NAME</b>	: Mr. VIKAS AGGARWAL	<b>PATIENT ID</b>	: 1667341
<b>AGE/ GENDER</b>	: 52 YRS/MALE	<b>REG. NO./LAB NO.</b>	: 012411100019
<b>COLLECTED BY</b>	: SURJESH	<b>REGISTRATION DATE</b>	: 10/Nov/2024 09:39 AM
<b>REFERRED BY</b>	: CENTRAL PHOENIX CLUB (AMBALA CANTT)	<b>COLLECTION DATE</b>	: 10/Nov/2024 09:54AM
<b>BARCODE NO.</b>	: 01520469	<b>REPORTING DATE</b>	: 10/Nov/2024 10:15AM
<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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**HAEMATOLOGY**  
**COMPLETE BLOOD COUNT (CBC)**


**RED BLOOD CELLS (RBCS) COUNT AND INDICES**


HAEMOGLOBIN (HB) <i>by CALORIMETRIC</i>	13.5	gm/dL	12.0 - 17.0
RED BLOOD CELL (RBC) COUNT <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDEANCE</i>	4.99	Millions/cmm	3.50 - 5.00
PACKED CELL VOLUME (PCV) <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	41.8	%	40.0 - 54.0
MEAN CORPUSCULAR VOLUME (MCV) <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	83.7	fL	80.0 - 100.0
MEAN CORPUSCULAR HAEMOGLOBIN (MCH) <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	27.1	pg	27.0 - 34.0
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC) <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	32.4	g/dL	32.0 - 36.0
RED CELL DISTRIBUTION WIDTH (RDW-CV) <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	14	%	11.00 - 16.00
RED CELL DISTRIBUTION WIDTH (RDW-SD) <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	44.1	fL	35.0 - 56.0
MENTZERS INDEX <i>by CALCULATED</i>	16.77	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0
GREEN & KING INDEX <i>by CALCULATED</i>	23.52	RATIO	BETA THALASSEMIA TRAIT:<= 65.0 IRON DEFICIENCY ANEMIA: > 65.0

**WHITE BLOOD CELLS (WBCS)**

TOTAL LEUCOCYTE COUNT (TLC) <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	6590	/cmm	4000 - 11000
NUCLEATED RED BLOOD CELLS (nRBCS) <i>by AUTOMATED 6 PART HEMATOLOGY ANALYZER</i>	NIL		0.00 - 20.00
NUCLEATED RED BLOOD CELLS (nRBCS) % <i>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER</i>	NIL	%	< 10 %



  
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TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

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<b><u>DIFFERENTIAL LEUCOCYTE COUNT (DLC)</u></b>			
NEUTROPHILS <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	50	%	50 - 70
LYMPHOCYTES <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	32	%	20 - 40
EOSINOPHILS <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	<b>12<sup>H</sup></b>	%	1 - 6
MONOCYTES <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	6	%	2 - 12
BASOPHILS <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	0	%	0 - 1
<b><u>ABSOLUTE LEUKOCYTES (WBC) COUNT</u></b>			
ABSOLUTE NEUTROPHIL COUNT <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	3295	/cmm	2000 - 7500
ABSOLUTE LYMPHOCYTE COUNT <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	2109	/cmm	800 - 4900
ABSOLUTE EOSINOPHIL COUNT <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	<b>791<sup>H</sup></b>	/cmm	40 - 440
ABSOLUTE MONOCYTE COUNT <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	395	/cmm	80 - 880
ABSOLUTE BASOPHIL COUNT <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	0	/cmm	0 - 110
ABSOLUTE IMMATURE GRANULOCYTE COUNT <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	0	/cmm	0.0 - 999.0
<b><u>PLATELETS AND OTHER PLATELET PREDICTIVE MARKERS.</u></b>			
PLATELET COUNT (PLT) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	219000	/cmm	150000 - 450000
PLATELETCRIT (PCT) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	0.26	%	0.10 - 0.36
MEAN PLATELET VOLUME (MPV) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	12	fL	6.50 - 12.0
PLATELET LARGE CELL COUNT (P-LCC) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	87000	/cmm	30000 - 90000
PLATELET LARGE CELL RATIO (P-LCR) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	39.8	%	11.0 - 45.0
PLATELET DISTRIBUTION WIDTH (PDW) <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	16.1	%	15.0 - 17.0



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NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD



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<b>BARCODE NO.</b>	: 01520469	<b>REPORTING DATE</b>	: 13/Nov/2024 01:41PM
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**BLOOD ELEMENTS/METALS AND MINERALS AND NUTRIENTS**

**LEAD**

LEAD: BLOOD 18.42 µg/L < 150.0  
by ICP-MS (INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETRY)

**INTERPRETATION:**

Lead is the most ubiquitous toxic metal detectable in practically all phases of the inert environment and in all biological systems. Industrial exposure to lead is seen in industries manufacturing lead containing paints & ceramic glazes, batteries, water pipes & ammunition. Major exposure of the general population is through food & water. Lead containing toys & paints are a primary source of lead exposure in children. Centre for Disease Control (CDC) recommends universal screening of children from 6 months of age. Acute toxicity is uncommon as compared to chronic toxicity leading to intellectual deficit and lead induced anemias in children

LEAD INTERPRETATION	ASSOCIATED CONDITIONS
Lead exposure can occur as – 1. Occupational exposure in gasoline industries, Lead planting, auto repair plants and construction sites. 2. Other sources are like leaded house paints, drinking water from lead plumbing, vegetables grown in lead contaminated soil, certain Chinese and Ayurveda herbal preparations etc. In children exposure through soil as in Pica and toys containing lead can be sources of exposure.	Prolonged exposure to lead is often associated with Microcytic hypochromic anaemia, renal dysfunction, hypertension, anorexia, muscle discomfort, constipation, and metallic taste.

LEAD LEVELS IN (µg/L)	ACTION REQUIRED
0 - 9	No additional action
10 – 19	Identify and minimise exposure:
20 – 39	Exposure removal if symptomatic
40 – 79	Immediate evaluation
>=100	Toxicity, Chelate immediately

- Whole Blood metal testing is used for the detection of recent exposure or poisoning with the toxic element. However, blood metal levels in healthy subjects can vary considerably with exposure to the particular metal present in the diet and in the environment.
- It should be noted that low or within acceptable levels in blood do not always exclude that the element is uninvolved in contributing to the patient's symptoms because certain elements may be sequestered in tissues.
- Lower metal levels in patients on follow-up imply that the toxic element exposure is reduced in the patient's immediate environment or that the body has efficiently eliminated the toxic element.

**NOTE:**

- Inductively Coupled Plasma-Mass Spectrometry is used to determine the level of heavy / trace metals in biological tissues
- To assess occupational exposure sample should be collected at the end of the shift on the last day of the work week

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



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