

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

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

NAME : Ms. SAKSHI  
AGE/ GENDER : 28 YRS/FEMALE  
COLLECTED BY :  
REFERRED BY :  
BARCODE NO. : 01515486  
CLIENT CODE. : KOS DIAGNOSTIC LAB  
CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

PATIENT ID : 1587572  
REG. NO./LAB NO. : 012408220039  
REGISTRATION DATE : 22/Aug/2024 11:16 AM  
COLLECTION DATE : 22/Aug/2024 11:21AM  
REPORTING DATE : 22/Aug/2024 11:55AM

| Test Name | Value | Unit | Biological Reference interval |
|-----------|-------|------|-------------------------------|
|-----------|-------|------|-------------------------------|

## HAEMATOLOGY

### COMPLETE BLOOD COUNT (CBC)

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

|  |                   |              |   |
|--|-------------------|--------------|---|
| HAEMOGLOBIN (HB)<br>by CALORIMETRIC  | 10.5 <sup>L</sup> | gm/dL        | 12.0 - 16.0   |
| RED BLOOD CELL (RBC) COUNT<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE              | 4.8               | Millions/cmm | 3.50 - 5.00   |
| PACKED CELL VOLUME (PCV)<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER                 | 34.2 <sup>L</sup> | %            | 37.0 - 50.0   |
| MEAN CORPUSCULAR VOLUME (MCV)<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER            | 71.3 <sup>L</sup> | fL           | 80.0 - 100.0  |
| MEAN CORPUSCULAR HAEMOGLOBIN (MCH)<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER       | 21.8 <sup>L</sup> | pg           | 27.0 - 34.0   |
| MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC)<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER | 30.6 <sup>L</sup> | g/dL         | 32.0 - 36.0   |
| RED CELL DISTRIBUTION WIDTH (RDW-CV)<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER     | 17 <sup>H</sup>   | %            | 11.00 - 16.00   |
| RED CELL DISTRIBUTION WIDTH (RDW-SD)<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER     | 45.2              | fL           | 35.0 - 56.0   |
| MENTZERS INDEX<br>by CALCULATED  | 14.85             | RATIO        | BETA THALASSEMIA TRAIT: < 13.0<br>IRON DEFICIENCY ANEMIA: >13.0   |
| GREEN & KING INDEX<br>by CALCULATED  | 25.17             | RATIO        | BETA THALASSEMIA TRAIT: <= 65.0<br>IRON DEFICIENCY ANEMIA: > 65.0 |

#### WHITE BLOOD CELLS (WBCS)

|   |      |      |              |
|---|------|------|--------------|
| TOTAL LEUCOCYTE COUNT (TLC)<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY              | 7580 | /cmm | 4000 - 11000 |
| NUCLEATED RED BLOOD CELLS (nRBCS)<br>by AUTOMATED 6 PART HEMATOLOGY ANALYZER          | NIL  |      | 0.00 - 20.00 |
| NUCLEATED RED BLOOD CELLS (nRBCS) %<br>by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER | NIL  | %    | < 10 %       |

#### DIFFERENTIAL LEUCOCYTE COUNT (DLC)

|  |                 |   |         |
|--|-----------------|---|---------|
| NEUTROPHILS<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY | 72 <sup>H</sup> | % | 50 - 70 |
|--|-----------------|---|---------|



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| LYMPHOCYTES<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY                             | 21                  | %    | 20 - 40                       |
| EOSINOPHILS<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY                             | 1                   | %    | 1 - 6                         |
| MONOCYTES<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY                               | 6                   | %    | 2 - 12                        |
| BASOPHILS<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY                               | 0                   | %    | 0 - 1                         |
| <b><u>ABSOLUTE LEUKOCYTES (WBC) COUNT</u></b>  |                     |      |                               |
| ABSOLUTE NEUTROPHIL COUNT<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY               | 5458                | /cmm | 2000 - 7500                   |
| ABSOLUTE LYMPHOCYTE COUNT<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY               | 1592                | /cmm | 800 - 4900                    |
| ABSOLUTE EOSINOPHIL COUNT<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY               | 76                  | /cmm | 40 - 440                      |
| ABSOLUTE MONOCYTE COUNT<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY                 | 455                 | /cmm | 80 - 880                      |
| ABSOLUTE BASOPHIL COUNT<br>by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY                 | 0                   | /cmm | 0 - 110                       |
| <b><u>PLATELETS AND OTHER PLATELET PREDICTIVE MARKERS.</u></b>                       |                     |      |                               |
| PLATELET COUNT (PLT)<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE              | 386000              | /cmm | 150000 - 450000               |
| PLATELETCRIT (PCT)<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE                | 0.48 <sup>H</sup>   | %    | 0.10 - 0.36                   |
| MEAN PLATELET VOLUME (MPV)<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE        | 12 <sup>H</sup>     | fL   | 6.50 - 12.0                   |
| PLATELET LARGE CELL COUNT (P-LCC)<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE | 170000 <sup>H</sup> | /cmm | 30000 - 90000                 |
| PLATELET LARGE CELL RATIO (P-LCR)<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE | 44.1                | %    | 11.0 - 45.0                   |
| PLATELET DISTRIBUTION WIDTH (PDW)<br>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE | 15.4                | %    | 15.0 - 17.0                   |
| NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD   |                     |      |                               |



  
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## ENDOCRINOLOGY

### THYROID STIMULATING HORMONE (TSH)

THYROID STIMULATING HORMONE (TSH): SERUM 1.083  $\mu$ IU/mL 0.35 - 5.50

by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)

3rd GENERATION, ULTRASENSITIVE

#### INTERPRETATION:

| AGE                 | REFERENCE RANGE ( $\mu$ IU/mL) |
|---------------------|--------------------------------|
| 0 – 5 DAYS          | 0.70 – 15.20                   |
| 6 Days – 2 Months   | 0.70 – 11.00                   |
| 3 – 11 Months       | 0.70 – 8.40                    |
| 1 – 5 Years         | 0.70 – 7.00                    |
| 6 – 10 Years        | 0.60 – 5.50                    |
| 11 - 15             | 0.50 – 5.50                    |
| > 20 Years (Adults) | 0.27 – 5.50                    |
| <b>PREGNANCY</b>    |                                |
| 1st Trimester       | 0.10 - 3.00                    |
| 2nd Trimester       | 0.20 - 3.00                    |
| 3rd Trimester       | 0.30 - 4.10                    |

**NOTE:- TSH levels are subjected to circadian variation, reaching peak levels between 2-4 a.m and at a minimum between 6-10 pm. The variation is of the order of 50 %. Hence time of the day has influence on the measured serum TSH concentration.**

**USE:-** TSH controls biosynthesis and release of thyroid hormones T4 & T3. It is a sensitive measure of thyroid function, especially useful in early or subclinical hypothyroidism, before the patient develops any clinical findings or goitre or any other thyroid function abnormality.


#### INCREASED LEVELS:


- 1.Primary or untreated hypothyroidism, may vary from 3 times to more than 100 times normal depending on degree of hypofunction.
- 2.Hypothyroid patients receiving insufficient thyroid replacement therapy.
- 3.Hashimotos thyroiditis.
- 4.DRUGS: Amphetamines, Iodine containing agents and dopamine antagonist.
- 5.Neonatal period, increase in 1st 2-3 days of life due to post-natal surge.

#### DECREASED LEVELS:

- 1.Toxic multi-nodular goitre & Thyroiditis.
- 2.Over replacement of thyroid hormone in treatment of hypothyroidism.
- 3.Autonomously functioning Thyroid adenoma
- 4.Secondary pituitary or hypothalamic hypothyroidism
- 5.Acute psychiatric illness
- 6.Severe dehydration.



  
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7.DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.

8.Pregnancy: 1st and 2nd Trimester


**LIMITATIONS:**

- 1.TSH may be normal in central hypothyroidism, recent rapid correction of hyperthyroidism or hypothyroidism, pregnancy, phenytoin therapy.
- 2.Autoimmune disorders may produce spurious results.

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



  
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