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

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



| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 08/Nov/2024 04:50AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

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

## HAEMATOLOGY

### GLYCOSYLATED HAEMOGLOBIN (HBA1C)

| | | | |
|---|---|---|---|
| GLYCOSYLATED HAEMOGLOBIN (HbA1c): WHOLE BLOOD<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | 6.4 | % | 4.0 - 6.4 |
| ESTIMATED AVERAGE PLASMA GLUCOSE<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | 136.98 | mg/dL | 60.00 - 140.00 |

***INTERPRETATION:***

| AS PER AMERICAN DIABETES ASSOCIATION (ADA): | | |
|---|---|---|
| **REFERENCE GROUP** | **GLYCOSYLATED HEMOGLOGIB (HBAIC) in %** | |
| Non diabetic Adults >= 18 years | <5.7 | |
| At Risk (Prediabetes) | 5.7 – 6.4 | |
| Diagnosing Diabetes | >= 6.5 | |
| Therapeutic goals for glycemic control | **Age > 19 Years** | |
| | Goals of Therapy: | < 7.0 |
| | Actions Suggested: | >8.0 |
| | **Age < 19 Years** | |
| | Goal of therapy: | <7.5 |

**COMMENTS:**

1.Glycosylated hemoglobin (HbA1c) test is three monthly monitoring done to assess compliace with therapeutic regimen in diabetic patients.

*2.Since Hb1c reflects long term fluctuations in blood glucose concentration, a diabetic patient who has recently under good control may still have high concentration of HbAIc. Converse is true for a diabetic previously under good control but now poorly controlled.*

*3.Target goals of < 7.0 % may be beneficial in patients with short duration of diabetes, long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes, limited life expectancy or extensive co-morbid conditions, targetting a goal of < 7.0% may not be appropiate.*

4.High HbA1c (>9.0 -9.5 %) is strongly associated with risk of development and rapid progression of microvascular and nerve complications

5.Any condition that shorten RBC life span like acute blood loss, hemolytic anemia falsely lower HbA1c results.

6.HbA1c results from patients with HbSS,HbSC and HbD must be interpreted with caution , given the pathological processes including anemia,increased red cell turnover, and transfusion requirement that adversely impact HbA1c as a marker of long-term gycemic control.

7.Specimens from patients with polycythemia or post-splenctomy may exhibit increse in HbA1c values due to a somewhat longer life span of the red cells.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

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

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



| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 08/Nov/2024 04:50AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

## HAEMOGLOBIN - HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HB-HPLC)

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| **HAEMOGLOBIN VARIANTS** | | | |
| HAEMOGLOBIN A0 (ADULT)<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | **80.7$^{L}$** | % | 83.00 - 90.00 |
| HAEMOGLOBIN F (FOETAL)<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | 0.8 | % | 0.00 - 2.0 |
| HAEMOGLOBIN A2<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | **4.3$^{H}$** | % | 1.50 - 3.70 |
| PEAK 3<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | 6.1 | % | < 10.0 |
| OTHERS-NON SPECIFIC<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | ABSENT | % | ABSENT |
| HAEMOGLOBIN S<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | NOT DETECTED | % | < 0.02 |
| HAEMOGLOBIN D (PUNJAB)<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | NOT DETECTED | % | < 0.02 |
| HAEMOGLOBIN E<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | NOT DETECTED | % | < 0.02 |
| HAEMOGLOBIN C<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | NOT DETECTED | % | < 0.02 |
| UNKNOWN UNIDENTIFIED VARIANTS<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | NOT DETECTED | % | < 0.02 |
| GLYCOSYLATED HAEMOGLOBIN (HbA1c): WHOLE BLOOD<br>*by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)* | 6.4 | % | 4.0 - 6.4 |
| **RED BLOOD CELLS (RBCS) COUNT AND INDICES** | | | |
| HAEMOGLOBIN (HB)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **11.5$^{L}$** | gm/dL | 12.0 - 17.0 |
| RED BLOOD CELL (RBC) COUNT<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **6.29$^{H}$** | Millions/cmm | 3.50 - 5.00 |
| PACKED CELL VOLUME (PCV)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **38$^{L}$** | % | 40.0 - 54.0 |
| MEAN CORPUSCULAR VOLUME (MCV)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **60.5$^{L}$** | fL | 80.0 - 100.0 |
| MEAN CORPUSCULAR HAEMOGLOBIN (MCH)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **18.3$^{L}$** | pg | 27.0 - 34.0 |

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

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

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

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 08/Nov/2024 04:50AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **30.3**$^{L}$ | g/dL | 32.0 - 36.0 |
| RED CELL DISTRIBUTION WIDTH (RDW-CV)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | 15.3 | % | 11.00 - 16.00 |
| RED CELL DISTRIBUTION WIDTH (RDW-SD)<br>*by AUTOMATED HEMATOLOGY ANALYZER* | **34.6**$^{L}$ | fL | 35.0 - 56.0 |
| **OTHERS** | | | |
| MENTZERS INDEX<br>*by CALCULATED* | 9.62 | RATIO | BETA THALASSEMIA TRAIT: < 13.0<br>IRON DEFICIENCY ANEMIA: >13.0 |
| **INTERPRETATION** | HB VARIANT ANALYSIS- Suggestive of Beta thalassemia trait. Parental screening &-or DNA analysis is advised. | | |

***INTERPRETATION:***

The Thalassemia syndromes, considered the most common genetic disorder worldwide, are a heterogenous group of mandelian disorders, all characterized by a lack of/or decreased synthesis of either the alpha-globin chains (alpha thalassemia) or the beta-globin chains (beta thalassemia) of haemoglobin.

**HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC):**

1.HAEMOGLOBIN VARIANT ANALYSIS, BLOOD- High Performance liquid chromatography (HPLC) is a fast & accurate method for determining the presence and for quatitation of various types of normal haemoglobin and common abnormal hb variants, including but not limited to Hb S, C, E, D and Beta –thalassemia.
2.The diagnosis of these abnormal haemoglobin should be confirmed by DNA analysis.
3.The method use has a limited role in the diagnosis of alpha thalassemia.
4.Slight elevation in haemoglobin A2 may also occur in hyperthyroidism or when there is deficiency of vitamin b12 or folate and this should be istinguished from inherited elevation of HbA2 in Beta- thalassemia trait.

**NAKED EYE SINGLE TUBE RED CELL OSMOTIC FRAGILITY TEST (NESTROFT):**

1.It is a screening test to distinguish beta thalassemia trait. Also called as Naked Eye Single Tube Red Cell Osmotic Fragility Test.
2.The test showed a sensitivity of 100%, specificity of 85.47%, a positive predictive value of 66% and a negative predictive value of 100%.
3.A high negative predictive value can reasonably rule out beta thalassemia trait cases. So, it should be adopted as a screening test for beta thalassemia trait, as it is not practical or feasible to employ HbA2 in every case of anemia in childhood.

**MENTZERS INDEX:**

1.The Mentzer index, helpful in differentiating iron deficiency anemia from beta thalassemia. If a CBC indicates microcytic anemia, the Mentzer index is said to be a method of distinguishing between them.
2.If the index is less than 13, thalassemia is said to be more likely. If the result is greater than 13, then iron-deficiency anemia is said to be more likely.
3.The principle involved is as follows: In iron deficiency, the marrow cannot produce as many RBCs and they are small (microcytic), so the RBC count and the MCV will both be low, and as a result, the index will be greater than 13. Conversely, in thalassemia, which is a disorder of globin synthesis, the number of RBC's produced is normal, but the cells are smaller and more fragile. Therefore, the RBC count is normal, but the MCV is low, so the index will be less than 13.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 08/Nov/2024 04:50AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

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

**NOTE:** In practice, the Mentzer index is not a reliable indicator and should not, by itself, be used to differentiate. In addition, it would be possible for a patient with a microcytic anemia to have both iron deficiency and thalassemia, in which case the index would only suggest iron deficiency.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

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

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



| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 10:57AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

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

## IMMUNOPATHOLOGY/SEROLOGY

### HEPATITIS C VIRUS (HCV) ANTIBODY: TOTAL

| | | | |
|---|---|---|---|
| HEPATITIS C ANTIBODY (HCV) TOTAL: SERUM<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | 0.07 | S/CO | NEGATIVE: < 1.00<br>POSITIVE: > 1.00 |
| HEPATITIS C ANTIBODY (HCV) TOTAL RESULT<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | NON - REACTIVE | | |

***INTERPRETATION:-***

| RESULT (INDEX) | REMARKS |
|---|---|
| < 1.00 | NON - REACTIVE/NOT - DETECTED |
| > =1.00 | REACTIVE/ASYMPTOMATIC/INFECTIVE STATE/CARRIER STATE. |

Hepatitis C (HCV) is an RNA virus of Favivirus group transmitted via blood transfusions, transplantation, injection drug abusers, accidental needle punctures in healthcare workers, dialysis patients and rarely from mother to infant. 10 % of new cases show sexual transmission. As compared to HAV & HBV , chronic infection with HCV occurs in 85 % of infected individuals. In high risk population, the predictive value of Anti HCV for HCV infection is > 99% whereas in low risk populations it is only 25 %.

**USES:**

1. Indicator of past or present infection, but does not differentiate between Acute/ Chronic/Resolved Infection.
2. Routine screening of low and high prevelance population including blood donors.

**NOTE:**

1. False positive results are seen in Auto-immune disease, Rheumatoid Factor, HYpergammaglobulinemia, Paraproteinemia, Passive antibody transfer, Anti-idiotypes and Anti-superoxide dismutase.
2. False negative results are seen in early Acute infection, Immunosuppression and Immuno—incompetence.
3. *HCV-RNA PCR recommended in all reactive results to differentiate between past and present infection.*

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 11:52AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

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

## ANTI HUMAN IMMUNODEFICIENCY VIRUS (HIV) DUO ULTRA WITH (P-24 ANTIGEN DETECTION)

| | | | |
|---|---|---|---|
| HIV 1/2 AND P24 ANTIGEN: SERUM<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | 0.07 | S/CO | NEGATIVE: < 1.00<br>POSITIVE: > 1.00 |
| HIV 1/2 AND P24 ANTIGEN RESULT<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | NON - REACTIVE | | |

***INTERPRETATION:-***

| RESULT (INDEX) | REMARKS |
|---|---|
| < 1.00 | NON - REACTIVE |
| > = 1.00 | PROVISIONALLY REACTIVE |

Non-Reactive result implies that antibodies to HIV 1/ 2 have not been detected in the sample . This menas that patient has either not been exposed to HIV 1/ 2 infection or the sample has been tested during the "window phase" i.e. before the development of detectable levels of antibodies. Hence a Non Reactive result does not exclude the possibility of exposure or infection with HIV 1/ 2.

**RECOMMENDATIONS:**

1. Results to be clinically correlated
2. Rarely falsenegativity/positivity may occur.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

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

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



| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 11:52AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

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

## HEPATITIS B SURFACE ANTIGEN (HBsAg) ULTRA

| | | | |
|---|---|---|---|
| HEPATITIS B SURFACE ANTIGEN (HBsAg): SERUM<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | 0.35 | S/CO | NEGATIVE: < 1.0<br>POSITIVE: > 1.0 |
| HEPATITIS B SURFACE ANTIGEN (HBsAg) RESULT<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | NON REACTIVE | | |

***INTERPRETATION:***

| RESULT IN INDEX VALUE | REMARKS |
|---|---|
| < 1.30 | NEGATIVE (-ve) |
| >=1.30 | POSITIVE (+ve) |

Hepatitis B Virus (HBV) is a member of the Hepadna virus family causing infection of the liver with extremely variable clinical features. Hepatitis B is transmitted primarily by body fluids especially serum and also spread effectively sexually and from mother to baby. In most individuals HBV hepatitis is self limiting, but 1-2 % normal adolescent and adults develop Chronic Hepatitis. Frequency of chronic HBV infection is 5-10% in immunocompromised patients and 80 % neonates. The initial serological marker of acute infection is HBsAg which typically appears 2-3 months after infection and disappears 12-20 weeks after onset of symtoms. Persistence of HBsAg for more than 6 months indicates carrier state or Chronic Liver disease.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 09:43AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

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

## VDRL

| | | | |
|---|---|---|---|
| VDRL<br>*by IMMUNOCHROMATOGRAPHY* | NON REACTIVE | | NON REACTIVE |

***INTERPRETATION:***

1.Does not become positive until 7 - 10 days after appearance ofchancre.
2.***High titer (>1:16) - active disease.***
3.***Low titer (<1:8) - biological falsepositive test in 90% cases or due to late or late latent syphillis.***
4.Treatment of primary syphillis causes progressive decline tonegative VDRL within 2 years.
5.Rising titer (4X) indicates relapse,reinfection, or treatment failure and need for retreatment.
6.May benonreactive in early primary, late latent, and late syphillis (approx. 25% ofcases).
***7.Reactive and weakly reactive tests should always be confirmedwith FTA-ABS (fluorescent treponemal antibody absorptiontest).***

**SHORTTERM FALSE POSITIVE TEST RESULTS (<6 MONTHS DURATION) MAY OCCURIN:**

1.Acute viral illnesses (e.g., hepatitis, measles, infectious mononucleosis)
2.M. pneumoniae; Chlamydia; Malaria infection.
3.Some immunizations
4.Pregnancy (rare)

**LONGTERM FALSE POSITIVE TEST RESULTS (>6 MONTHS DURATION) MAY OCCUR IN:**

1.Serious underlying disease e.g., collagen vascular diseases, leprosy ,malignancy.
2.Intravenous drug users.
3.Rheumatoid arthritis, thyroiditis, AIDS, Sjogren's syndrome.
4.<l0 % of patients older thanage 70 years.
5.Patients taking some anti-hypertensive drugs.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 11:16AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

# CLINICAL PATHOLOGY

## SEMEN ANALYSIS/SEMINOGRAM

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| **PHYSICAL EXAMINATION** | | | |
| TIME OF SPECIMEN COLLECTION | 07-11-2024 | AM/PM | |
| DURATION OF ABSTINENCE | 3 DAYS | DAYS | 2 - 7 |
| TYPE OF SAMPLE | FRESH | | |
| LIQUIFACTION TIME AT 37*C | < 30 MINS | MINS | 30 - 60 |
| VOLUME | 1 | ML | |
| COLOUR | WHITISH OPAQUE | | WHITISH OPAQUE |
| VISCOSITY | VISCOUS | | VISCOUS |
| pH | **8^H** | | 5.0 - 7.5 |
| **AUTOMMATED SEMEN ANALYSIS, GOLD STANDARD, WHO APPROVED (SQA GOLD)** | | | |
| TOTAL SPERM CONCENTRATION<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 17.4 | Millions/mL | 12 - 16 |
| TOTAL MOTILITY (GRADE A + GRABE B + GRADE C)<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 28 | % | > = 42.0 |
| RAPIDLY PROGRESSIVE MOTILITY (GRADE A)<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 2 | % | > = 30.0 |
| SLOWLY PROGRESSIVE MOTILITY (GRADE B)<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 0 | % | >= 30 |
| NON PROGRESSIVE MOTILITY (GRADE C)<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 26 | % | <= 1 |
| IMMOTILE<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 72 | % | |
| MORPHOLOGY NORMAL<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 1 | % | > = 4.0 |
| MOTILE SPERM CONCENTRATION<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 2.1 | Millions/mL | > = 6.0 |
| RAPIDLY PROGRESSIVE MOTILE SPERM CONCENTRATION<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 0.2 | Millions/mL | > = 5.0 |
| SLOWLY PROGRESSIVE MOTILE SPERM CONCENTRATION<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 0 | Millions/mL | |
| FUNCTIONAL SPERM CONCENTRATION | 0 | Millions/mL | |

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

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

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

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 11:16AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| *by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | | | |
| SPERM MOTILE INDEX (SMI)<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 3 | | > = 80 |
| **TOTAL PER EJACULATION** | | | |
| TOTAL SPERM NUMBER<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 17.4 | Millions/ejc. | > = 39.0 |
| TOTAL MOTILE SPERM<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 4.8 | Millions/ejc. | > = 16.0 |
| TOTAL PROGRESSIVE MOTILE SPERM<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 0.3 | Millions/ejc. | > = 12.0 |
| TOTAL FUNCTIONAL SPERM<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 0 | Millions/ejc. | |
| TOTAL MORPHOLOGY NORMAL SPERM<br>*by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM* | 0.1 | Millions/ejc. | > = 2.0 |
| **MANUAL MICROSCOPY AND MORPHOLOGY** | | | |
| VITALITY<br>*by MICROSCOPY* | 54 | % | |
| RED BLOOD CELLS (RBCs)<br>*by MICROSCOPY* | NOT DETECTED | /HPF | NOT DETECTED |
| PUS CELLS<br>*by MICROSCOPY* | 0-3 | /HPF | 0 - 5 |
| AGGLUTINATES<br>*by MICROSCOPY* | NOT DETECTED | | NOT DETECTED |
| AMORPHOUS DEPOSITS/ROUND CELLS/DEBRIS<br>*by MICROSCOPY* | NOT DETECTED | | NOT DETECTED |
| BACTERIA<br>*by MICROSCOPY* | NEGATIVE (-ve) | | NEGATIVE (-ve) |
| HEAD DEFECTS<br>*by MICROSCOPY* | 38 | % | |
| PIN HEADS<br>*by MICROSCOPY* | 10 | % | |
| NECK AND MID-PIECE DEFECTS<br>*by MICROSCOPY* | 27 | % | |
| TAIL DEFECTS<br>*by MICROSCOPY* | 20 | % | |
| CYTOPLASMIC DROPLETS<br>*by MICROSCOPY* | 2 | % | |

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

| | | | |
|---|---|---|---|
| **NAME** | **: Mr. AMIT SHARMA** | | |
| **AGE/ GENDER** | : 30 YRS/MALE | **PATIENT ID** | : 1663974 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012411070014** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 07/Nov/2024 08:50 AM |
| **BARCODE NO.** | : 01520271 | **COLLECTION DATE** | : 07/Nov/2024 08:56AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 07/Nov/2024 11:16AM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| ACROSOME/NUCLEUS DEFECTS<br>*by MICROSCOPY* | 2 | % | |

**CHEMICAL EXAMINATION**

| | | |
|---|---|---|
| **SEMEN FRUCTOSE (QUALITATIVE)**<br>***by QUALITATIVE METHOD USING RESORCINOL*** | **POSITIVE (+ve)** | **POSITIVE (+ve)** |

***INTERPRETATION:***

1.Fructose is the energy source for sperm motility. A positive fructose is considered normal.
2.Azoospermia and fructose negative results may indicate an absence of seminal vesicles / vas deferens in the area of seminal vesicles / obstruction of seminal vesicles.

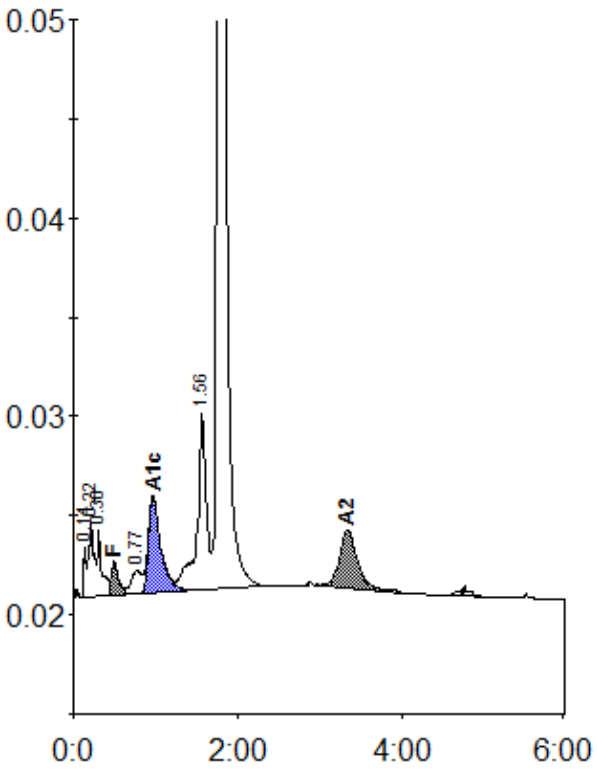
*** End Of Report ***

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

# Patient report

| | |
|---|---|
| Bio-Rad | DATE: 11/07/2024 |
| D-10 | TIME: 04:53 PM |
| S/N: #DJ6F040603 | Software version: 4.30-2 |
| Sample ID: | 01520271 |
| Injection date | 11/07/2024 04:44 PM |
| Injection #: 12 | Method: HbA2/F |
| Rack #: --- | Rack position: 2 |




Peak table - ID: 01520271

| Peak | R.time | Height | Area | Area % |
|---|---|---|---|---|
| Unknown | 0.14 | 2552 | 4750 | 0.4 |
| A1a | 0.22 | 3755 | 17862 | 1.5 |
| A1b | 0.30 | 3431 | 13599 | 1.2 |
| F | 0.50 | 1714 | 10543 | 0.8 |
| LA1c/CHb-1 | 0.77 | 1191 | 10339 | 0.9 |
| A1c | 0.97 | 4846 | 51174 | 6.4 |
| P3 | 1.56 | 8975 | 70166 | 6.1 |
| A0 | 1.77 | 237931 | 930682 | 80.7 |
| A2 | 3.34 | 2892 | 43520 | 4.3 |
| Total Area: | 1152635 | | | |

| Concentration: | % |
|---|---|
| F | 0.8 |
| A1c | 6.4 |
| A2 | 4.3 |