

(A Unit of KOS Healthcare)



Dr. Vinay Chopra
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Chairman & Consultant Pathologist

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

NAME : Mr. SANDEEP

AGE/ GENDER : 37 YRS/MALE PATIENT ID : 1600659

COLLECTED BY : REG. NO./LAB NO. : 012409030040

 REFERRED BY
 : 03/Sep/2024 01:40 PM

 BARCODE NO.
 : 01516245
 COLLECTION DATE
 : 03/Sep/2024 02:04PM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 03/Sep/2024 01:57PM

CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit Biological Reference interval

HAEMATOLOGY

HAEMOGLOBIN (HB)

HAEMOGLOBIN (HB) 10.2^L gm/dL 12.0 - 17.0

by CALORIMETRIC INTERPRETATION:-

Hemoglobin is the protein molecule in red blood cells that carries oxygen from the lungs to the bodys tissues and returns carbon dioxide from the tissues back to the lungs.

A low hemoglobin level is referred to as ANEMIA or low red blood count.

ANEMIA (DECRESED HAEMOGLOBIN):

1) Loss of blood (traumatic injury, surgery, bleeding, colon cancer or stomach ulcer)

2) Nutritional deficiency (iron, vitamin B12, folate)

3) Bone marrow problems (replacement of bone marrow by cancer)

4) Suppression by red blood cell synthesis by chemotherapy drugs

5) Kidney failure

6) Abnormal hemoglobin structure (sickle cell anemia or thalassemia).

POLYCYTHEMIA (INCREASED HAEMOGLOBIN):

- 1) People in higher altitudes (Physiological)
- 2) Smoking (Secondary Polycythemia)
- 3) Dehydration produces a falsely rise in hemoglobin due to increased haemoconcentration
- 4) Advanced lung disease (for example, emphysema)
- 5) Certain tumors
- 6) A disorder of the bone marrow known as polycythemia rubra vera,
- 7) Abuse of the drug erythropoetin (Epogen) by athletes for blood doping purposes (increasing the amount of oxygen available to the body by chemically raising the production of red blood cells).

NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD



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CLINICAL CHEMISTRY/BIOCHEMISTRY LIVER FUNCTION TEST (COMPLETE)

BILIRUBIN TOTAL: SERUM by DIAZOTIZATION, SPECTROPHOTOMETRY	0.85	mg/dL	INFANT: 0.20 - 8.00 ADULT: 0.00 - 1.20
BILIRUBIN DIRECT (CONJUGATED): SERUM by DIAZO MODIFIED, SPECTROPHOTOMETRY	0.18	mg/dL	0.00 - 0.40
BILIRUBIN INDIRECT (UNCONJUGATED): SERUM by CALCULATED, SPECTROPHOTOMETRY	0.67	mg/dL	0.10 - 1.00
SGOT/AST: SERUM by IFCC, WITHOUT PYRIDOXAL PHOSPHATE	19.6	U/L	7.00 - 45.00
SGPT/ALT: SERUM by IFCC, WITHOUT PYRIDOXAL PHOSPHATE	35.1	U/L	0.00 - 49.00
AST/ALT RATIO: SERUM by CALCULATED, SPECTROPHOTOMETRY	0.56	RATIO	0.00 - 46.00
ALKALINE PHOSPHATASE: SERUM by Para nitrophenyl phosphatase by amino methyl propanol	85.27	U/L	40.0 - 130.0
GAMMA GLUTAMYL TRANSFERASE (GGT): SERUM by SZASZ, SPECTROPHTOMETRY	34.33	U/L	0.00 - 55.0
TOTAL PROTEINS: SERUM by BIURET, SPECTROPHOTOMETRY	7.18	gm/dL	6.20 - 8.00
ALBUMIN: SERUM by BROMOCRESOL GREEN	4.09	gm/dL	3.50 - 5.50
GLOBULIN: SERUM by CALCULATED, SPECTROPHOTOMETRY	3.09	gm/dL	2.30 - 3.50
A : G RATIO: SERUM by CALCULATED, SPECTROPHOTOMETRY	1.32	RATIO	1.00 - 2.00

<u>INTERPRETATION</u>

NOTE:- To be correlated in individuals having SGOT and SGPT values higher than Normal Referance Range.

USE:- Differential diagnosis of diseases of hepatobiliary system and pancreas.

INCREASED:

DRUG HEPATOTOXICITY_	> 2	
ALCOHOLIC HEPATITIS	> 2 (Highly Suggestive)	
CIRRHOSIS	1.4 - 2.0	



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Test Name	Value	Unit	Biological Reference interval
INTRAHEPATIC CHOLESTATIS		> 1.5	
HEPATOCELLULAR CARCINOMA & CHRONIC HEPATITIS		> 1.3 (Slightly Increased)	
DECDEASED:		-	

- 1. Acute Hepatitis due to virus, drugs, toxins (with AST increased 3 to 10 times upper limit of normal)
- 2. Extra Hepatic cholestatis: 0.8 (normal or slightly decreased).

PROGNOSTIC SIGNIFICANCE:

1 KG GITGGTTG GIGITH IGTHIGE.	
NORMAL	< 0.65
GOOD PROGNOSTIC SIGN	0.3 - 0.6
POOR PROGNOSTIC SIGN	1.2 - 1.6



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Test Name Value Unit **Biological Reference interval**

CLINICAL PATHOLOGY SEMEN ANALYSIS/SEMINOGRAM

PHYSICAL EXAMINATION

TIME OF SPECIMEN COLLECTION	03-09-2024	AM/PM	
DURATION OF ABSTINENCE	3 DAYS	DAYS	2 - 7
TYPE OF STONE	FRESH		
LIQUIFACTION TIME AT 37*C	< 30 MINS	MINS	30 - 60
VOLUME	1.2	ML	
COLOUR	WHITISH OPAQUE		WHITISH OPAQUE
VISCOSITY	VISCOUS		VISCOUS
рН	8 ^H		5.0 - 7.5
AUTOMMATED SEMEN ANALYSIS, GOLD STANDARD,	WHO APPROVED (SQA GOI	<u>LD)</u>	
TOTAL SPERM CONCENTRATION	282.3	Millions/mL	12 - 16
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM		0.4	
TOTAL MOTILITY (GRADE A + GRABE B + GRADE C) by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM	31	%	> = 42.0
RAPIDLY PROGRESSIVE MOTILITY (GRADE A)	17	%	> = 30.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM	.,	70	7 - 00.0
SLOWLY PROGRESSIVE MOTILITY (GRADE B)	10	%	>= 30
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM			
NON PROGRESSIVE MOTILITY (GRADE C)	4	%	<= 1
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM IMMOTILE	69	%	
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM	09	/0	
.,			

86.2

48.4

28.6



MORPHOLOGY NORMAL

MOTILE SPERM CONCENTRATION

by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM

by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM RAPIDLY PROGRESSIVE MOTILE SPERM CONCENTRATION

by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM SLOWLY PROGRESSIVE MOTILE SPERM CONCENTRATION

by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM

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> = 4.0

> = 6.0

> = 5.0

Millions/mL

Millions/mL

Millions/mL



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Test Name	Value	Unit	Biological Reference interval
FUNCTIONAL SPERM CONCENTRATION by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM	7.8	Millions/mL	
VELOCITY (AVERAGE PATH VELOCITY) by electro-optics signal & computer alogrithm	54	Mic/sec	> = 5
SPERM MOTILE INDEX (SMI) by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM TOTAL PER EJACULATION	445		> = 80
TOTAL TER ESACOLATION TOTAL SPERM NUMBER	338.8	Millions/ejc.	> = 39.0
by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM	330.0	Millions/ejc.	> = 39.0
TOTAL MOTILE SPERM by ELECTRO-OPTICS SIGNAL & COMPUTER ALOGRITHM	103.4	Millions/ejc.	> = 16.0
TOTAL PROGRESSIVE MOTILE SPERM by electro-optics signal & computer alogrithm	92.4	Millions/ejc.	> = 12.0
TOTAL FUNCTIONAL SPERM by electro-optics signal & computer alogrithm	9.4	Millions/ejc.	
TOTAL MORPHOLOGY NORMAL SPERM by electro-optics signal & computer alogrithm	13.6	Millions/ejc.	> = 2.0
MANUAL MICROSCOPY AND MORPHOLOGY			
VITALITY by MICROSCOPY	69	%	
RED BLOOD CELLS (RBCs) by MICROSCOPY	NOT DETECTED	/HPF	NOT DETECTED
PUS CELLS by MICROSCOPY	6-8	/HPF	0 - 5
EPITHELIAL CELLS by MICROSCOPY	0-2	/HPF	ABSENT
AGGLUTINATES by MICROSCOPY	NOT DETECTED		NOT DETECTED
AMORPHOUS DEPOSITS/ROUND CELLS/DEBRIS by MICROSCOPY	NOT DETECTED		NOT DETECTED
BACTERIA by MICROSCOPY	NEGATIVE (-ve)		NEGATIVE (-ve)
HEAD DEFECTS by MICROSCOPY	38	%	
PIN HEADS by MICROSCOPY	9	%	



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Value	Unit	Biological Reference interval
25	%	
20	%	
2	%	
2	%	
	25	25 % 20 % 2 %

CHEMICAL EXAMINATION

SEMEN FRUCTOSE (QUALITATIVE)
POSITIVE (+ve)
POSITIVE (+ve)

by QUALITATIVE METHOD USING RESORCINOL

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.



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Test Name Unit **Biological Reference interval** Value

MICROBIOLOGY

CULTURE AEROBIC BACTERIA AND ANTIBIOTIC SENSITIVITY: URINE

CULTURE AND SUSCEPTIBILITY: URINE

DATE OF SAMPLE 03-09-2024 SPECIMEN SOURCE **URINE INCUBATION PERIOD** 48 HOURS

by AUTOMATED BROTH CULTURE

CULTURE STERILE

by AUTOMATED BROTH CULTURE

ORGANISM NO AEROBIC PYOGENIC ORGANISM GROWN AFTER 48 HOURS OF INCUBATION AT

by AUTOMATED BROTH CULTURE **AEROBIC SUSCEPTIBILITY: URINE**

- 1. In urine culture and sensitivity, presence of more than 100,000 organism per mL in midstream sample of urine is considered clinically significant. However in symptomatic patients, a smaller number of bacteria (100 to 10000/mL) may signify infection.

 2. Colony could be 100 to 10000/ mL indicate infection, if isolate from specimen obtained by suprapubic aspiration or "in-and-out"
- catheterization or from patients with indwelling catheters.

- A test interpreted as SENSTITIVE implies that infection due to isolate may be appropriately treated with the dosage of an antimicrobial agent recommended for that type of infection and infecting species, unless otherwise indicated.
 A test interpreted as INTERMEDIATE implies that the" Infection due to the isolate may be appropriately treated in body sites where the drugs are
- physiologically concentrated or when a high dosage of drug can be used".

 3.A test interpreted as **RESISTANT** implies that the "isolates are not inhibited by the usually achievable concentration of the agents with normal dosage, schedule and/or fall in the range where specific microbial resistance mechanism are likely (e.g. beta-lactamases), and clinical efficacy has not been reliable in treatment studies

CAUTION:

- Conditions which can cause a false Negative culture:

 1. Patient is on antibiotics. Please repeat culture post therapy.
- 2. Anaerobic bacterial infection.
- 3. Fastidious aerobic bacteria which are not able to grow on routine culture media.
- 4. Besides all these factors, at least in 25-40 % of cases there is no direct correlation between in vivo clinical picture.
- 5. Renal tuberculosis to be confirmed by AFB studies.



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Value Unit **Biological Reference interval** Test Name

CULTURE AEROBIC BACTERIA AND ANTIBIOTIC SENSITIVITY: SEMEN

CULTURE AND SUSCEPTIBILITY - SEMEN

DATE OF SAMPLE 03-09-2024 SPECIMEN SOURCE **SEMEN** INCUBATION PERIOD 48 HOURS **STERILE CULTURE**

by AUTOMATED BROTH CULTURE

NO AEROBIC PYOGENIC ORGANISM GROWN AFTER 48 HOURS OF INCUBATION AT **ORGANISM**

by AUTOMATED BROTH CULTURE 37*C

AEROBIC SUSCEPTIBILITY - SEMEN

INTERPRETATION

SUSCEPTIBILITY:

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