







Patient Name : CHIRANTAN MONDAL

**Age** : 33 Y 0 M 0 D

Gender : M

Lab Add.: Newtown, Kolkata-700156Ref Dr.: Dr.MEDICAL OFFICERCollection Date:25/Mar/2023 10:05AM

**Report Date** : 25/Mar/2023 03:37PM



Test Name	Result	Unit	Bio Ref. Interval	Method	
POTASSIUM, BLOOD , GEL SERUM					
POTASSIUM,BLOOD	4.50	mEq/L	3.5-5.5 mEq/L	ISE INDIRECT	
*CHLORIDE, BLOOD , .					
CHLORIDE,BLOOD	103	mEq/L	99-109 mEq/L	ISE INDIRECT	
SODIUM, BLOOD , GEL SERUM					
SODIUM,BLOOD	139	mEq/L	132 - 146 mEq/L	ISE INDIRECT	

Dr NEEPA CHOWDHURY MBBS MD (Biochemistry) Consultant Biochemist





Lab No. : SR7450265 Na	ame : CHIRANTAN MONDAL		Age/G: 33 Y 0 M 0 D / M	Date : 25-03-2023
ALKALINE PHOSPHATASE,	GEL SERUM			
ALKALINE PHOSPHATASE	85	U/L	46-116 U/L	IFCC standardization
BILIRUBIN (TOTAL), GEL SEF	RUM			
BILIRUBIN (TOTAL)	0.90	mg/dL	0.3-1.2 mg/dL	Vanadate oxidation
SGPT/ALT, GEL SERUM				
SGPT/ALT	55	U/L	7-40 U/L	Modified IFCC
UREA,BLOOD , GEL SERUM	19.3	mg/dL	19-49 mg/dL	Urease with GLDH
CALCIUM, BLOOD				
CALCIUM,BLOOD	9.80	mg/dL	8.7-10.4 mg/dL	Arsenazo III
TOTAL PROTEIN [BLOOD] AL	B:GLO RATIO , .			
TOTAL PROTEIN	8.00	g/dL	5.7-8.2 g/dL	BIURET METHOD
ALBUMIN	4.7	g/dL	3.2-4.8 g/dL	BCG Dye Binding
GLOBULIN	3.30	g/dl	1.8-3.2 g/dl	Calculated
AG Ratio	1.42		1.0 - 2.5	Calculated
THYROID PANEL (T3, T4, TS)	H), GEL SERUM			
T3-TOTAL (TRI IODOTHYRO)	NINE) 1.02	ng/ml	0.60-1.81 ng/ml	CLIA
T4-TOTAL (THYROXINE)	8.7	μg/dL	3.2-12.6 μg/dL	CLIA
TSH (THYROID STIMULATING	HORMONE) 3.79	μIU/mL	0.55-4.78 μIU/mL	CLIA

Serum TSH levels exhibit a diurnal variation with the peak occurring during the night and the nadir, which approximates to 50% of the peak value, occurring between 1000 and 1600 hours.[1,2] References:

- 1. Bugalho MJ, Domingues RS, Pinto AC, Garrao A, Catarino AL, Ferreira T, Limbert E and Sobrinho L. Detection of thyroglobulin mRNA transcripts in peripheral blood of *individuals with and without thyroid glands: evidence for thyroglobulin expression by blood cells. Eur J Endocrinol* 2001;145:409-13.
- 2. Bellantone R, Lombardi CP, Bossola M, Ferrante A,Princi P, Boscherini M et al. Validity of thyroglobulin mRNA assay in peripheral blood of postoperative thyroid carcinoma patients in predicting tumor recurrence varies according to the histologic type: results of a prospective study. Cancer 2001;92:2273-9.

#### **BIOLOGICAL REFERENCE INTERVAL**: [ONLY FOR PREGNANT MOTHERS]

Trimester specific TSH LEVELS during pregnancy:

FIRST TRIMESTER:  $0.10-3.00~\mu$  IU/mL SECOND TRIMESTER: 0.20 -3.50  $\mu$  IU/mL THIRD TRIMESTER: 0.30 -3.50  $\mu$  IU/mL

## **References:**

- 1. Erik K. Alexander, Elizabeth N. Pearce, Gregory A. Brent, Rosalind S. Brown, Herbert Chen, Chrysoula Dosiou, William A. Grobman, Peter Laurberg, John H. Lazarus, Susan J. Mandel, Robin P. Peeters, and Scott Sullivan. Thyroid. Mar 2017.315-389. <a href="http://doi.org/10.1089/thy.2016.0457">http://doi.org/10.1089/thy.2016.0457</a>
- 2. Kalra S, Agarwal S, Aggarwal R, Ranabir S. Trimester-specific thyroid-stimulating hormone: An indian perspective. Indian J Endocr Metab 2018;22:1-4.

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SGOT/AST, GEL SERUM				
SGOT/AST	30	U/L	13-40 U/L	Modified IFCC
DILIBURIN (DIDECT) OF CERUM				
BILIRUBIN (DIRECT), GEL SERUM	0.20	ma/dl	رام C مرم (طا	Vanadate oxidation
BILIRUBIN (DIRECT)	0.20	mg/dL	<0.2 mg/dL	Variauate Oxidation
CREATININE, BLOOD	0.96	mg/dL	0.7-1.3 mg/dL	Jaffe, alkaline picrate, kinetic
LIPID PROFILE, GEL SERUM				
CHOLESTEROL-TOTAL	161	mg/dL	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	Enzymatic
TRIGLYCERIDES	127	mg/dL	Normal:: < 150, BorderlineHigh::150-199, High:: 200-499, VeryHigh::>500	GPO-Trinder
HDL CHOLESTEROL	34	mg/dl	< 40 - Low 40-59- Optimum 60 - High	Elimination/catalase
LDL CHOLESTEROL DIRECT	102	mg/dL	OPTIMAL: <100 mg/dL, Near optimal/ above optimal: 100-129 mg/dL, Borderline high: 130-159 mg/dL, High: 160-189 mg/dL, Very high: >=190 mg/dL	Calculated ,
VLDL	25	mg/dl	< 40 mg/dl	Calculated
CHOL HDL Ratio	4.7		LOW RISK 3.3-4.4 AVERAGE RISK 4.47-7.1 MODERATE RISK 7.1-11.0 HIGH RISK >11.0	Calculated

Reference: National Cholesterol Education Program. Executive summary of the third report of The National Cholesterol Education Program (NCEP) Expert Panel on detection, evaluation, and treatment of high blood cholesterol in adults (Adult Treatment Panel III). JAMA. May 16 2001;285(19):2486-97.

URIC ACID, BLOOD, GEL SERUM

URIC ACID, BLOOD 6.20 mg/dL 3.5-7.2 mg/dL Uricase/Peroxidase

PDF Attached

GLYCATED HAEMOGLOBIN (HBA1C), EDTA WHOLE BLOOD

\*\*\*FOR BIOLOGICAL GLYCATED HEMOGLOBIN (HBA1C) REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED

REMARKS/NOTE WITH ADDITIONAL CLINICAL INFORMATION \*\*\*

27.0 mmol/mol **HPLC** HbA1c (IFCC)

Clinical Information and Laboratory clinical interpretation on Biological Reference Interval:

Low risk / Normal / non-diabetic : <5.7% (NGSP) / < 39 mmol/mol (IFCC) Pre-diabetes/High risk of Diabetes: 5.7%-6.4% (NGSP) / 39 - < 48 mmol/mol (IFCC) : >/= 6.5% (NGSP) / > 48 mmol/mol (IFCC) Diabetics-HbA1c level

Analyzer used: Bio-Rad-VARIANT TURBO 2.0

**Method: HPLC Cation Exchange** 

**Recommendations for glycemic targets** 

Ø Patients should use self-monitoring of blood glucose (SMBG) and HbA1c levels to assess glycemic control. Ø The timing and frequency of SMBG should be tailored based on patients' individual treatment, needs, and goals.

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Ø Patients should undergo HbA1c testing at least twice a year if they are meeting treatment goals and have stable glycemic control.

- Ø If a patient changes treatment plans or does not meet his or her glycemic goals, HbA1c testing should be done quarterly.
- $\varnothing$  For most adults who are not pregnant, HbA1c levels should be <7% to help reduce microvascular complications and macrovascular disease . Action suggested >8% as it indicates poor control.

Ø Some patients may benefit from HbA1c goals that are stringent.

Result alterations in the estimation has been established in many circumstances, such as after acute/ chronic blood loss, for example, after surgery, blood transfusions, hemolytic anemia, or high erythrocyte turnover; vitamin  $B_{12}$ / folate deficiency, presence of chronic renal or liver disease; after administration of high-dose vitamin E / C; or erythropoietin treatment.

Reference: Glycated hemoglobin monitoring BMJ 2006; 333;586-8

#### References:

- 1. Chamberlain JJ, Rhinehart AS, Shaefer CF, et al. Diagnosis and management of diabetes: synopsis of the 2016 American Diabetes Association Standards of Medical Care in Diabetes. Ann Intern Med. Published online 1 March 2016. doi:10.7326/M15-3016.
- 2. Mosca A, Goodall I, Hoshino T, Jeppsson JO, John WG, Little RR, Miedema K, Myers GL, Reinauer H, Sacks DB, Weykamp CW. International Federation of Clinical Chemistry and Laboratory Medicine, IFCC Scientific Division. Global standardization of glycated hemoglobin measurement: the position of the IFCC Working Group. Clin Chem Lab Med. 2007;45(8):1077-1080.

#### PHOSPHORUS-INORGANIC, BLOOD, GEL SERUM

PHOSPHORUS-INORGANIC,BLOOD 3.3 mg/dL 2.4-5.1 mg/dL Phosphomolybdate/UV

#### **URIC ACID, URINE, SPOT URINE**

URIC ACID, SPOT URINE 48.00 mg/dL 37-92 mg/dL URICASE

Dr. SUPARBA CHAKRABARTI MBBS, MD(BIOCHEMISTRY) Consultant Biochemist

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Lab No. : SR7450265 Name : CHIR	ANTAN MONDAL		Age/G: 33 Y 0 M 0 D / M	Date : 25-03-2023		
CBC WITH PLATELET (THROMBOCYTE) C	CBC WITH PLATELET (THROMBOCYTE) COUNT , EDTA WHOLE BLOOD					
HEMOGLOBIN	14.6	g/dL	13 - 17	PHOTOMETRIC		
WBC	7.8	*10^3/µL	4 - 10	DC detection method		
RBC	4.84	*10^6/µL	4.5 - 5.5	DC detection method		
PLATELET (THROMBOCYTE) COUNT	165	*10^3/µL	150 - 450*10^3/μL	DC detection method/Microscopy		
DI FFERENTI AL COUNT						
NEUTROPHILS	59	%	40 - 80 %	Flowcytometry/Microscopy		
LYMPHOCYTES	30	%	20 - 40 %	Flowcytometry/Microscopy		
MONOCYTES	07	%	2 - 10 %	Flowcytometry/Microscopy		
EOSINOPHILS	03	%	1 - 6 %	Flowcytometry/Microscopy		
BASOPHILS	01	%	0-0.9%	Flowcytometry/Microscopy		
CBC SUBGROUP						
HEMATOCRIT / PCV	44.6	%	40 - 50 %	Calculated		
MCV	92.2	fl	83 - 101 fl	Calculated		
MCH	30.1	pg	27 - 32 pg	Calculated		
MCHC	32.6	gm/dl	31.5-34.5 gm/dl	Calculated		
RDW - RED CELL DISTRIBUTION WIDTH	14.4	%	11.6-14%	Calculated		
PDW-PLATELET DISTRIBUTION WIDTH	37.1	fL	8.3 - 25 fL	Calculated		
MPV-MEAN PLATELET VOLUME	15.5		7.5 - 11.5 fl	Calculated		
ESR (ERYTHROCYTE SEDIMENTATION R						
1stHour	15	mm/hr	0.00 - 20.00 mm/hr	Westergren		
URINE ROUTINE ALL, ALL, URINE						
PHYSI CAL EXAMI NATI ON						
COLOUR	PALE YELLOW					
APPEARANCE	SLIGHTLY HAZY					
CHEMI CAL EXAMINATION						
pH	6.5		4.6 - 8.0	Dipstick (triple indicator method)		
SPECIFIC GRAVITY	1.015		1.005 - 1.030	Dipstick (ion concentration method)		
PROTEIN	NOT DETECTED		NOT DETECTED	Dipstick (protein error of pH indicators)/Manual		
GLUCOSE	NOT DETECTED		NOT DETECTED	Dipstick(glucose-oxidase-peroxidase method)/Manual		
KETONES (ACETOACETIC ACID, ACETONE)	NOT DETECTED		NOT DETECTED	Dipstick (Legals test)/Manual		
BLOOD	NOT DETECTED		NOT DETECTED	Dipstick (pseudoperoxidase reaction)		
BILIRUBIN	NEGATIVE		NEGATIVE	Dipstick (azo-diazo reaction)/Manual		
UROBILINOGEN	NEGATIVE		NEGATIVE	Dipstick (diazonium ion reaction)/Manual		
NITRITE	NEGATIVE		NEGATIVE	Dipstick (Griess test)		
LEUCOCYTE ESTERASE	NEGATIVE		NEGATIVE	Dipstick (ester hydrolysis reaction)		
MI CROSCOPI C EXAMI NATI ON						
LEUKOCYTES (PUS CELLS)	0-1	/hpf	0-5	Microscopy		
EPITHELIAL CELLS	0-1	/hpf	0-5	Microscopy		
RED BLOOD CELLS	NOT DETECTED	/hpf	0-2	Microscopy		
CAST	NOT DETECTED		NOT DETECTED	Microscopy		
CRYSTALS	NOT DETECTED		NOT DETECTED	Microscopy		
BACTERIA	NOT DETECTED		NOT DETECTED	Microscopy		
YEAST	NOT DETECTED		NOT DETECTED	Microscopy		

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Lab No.: SR7450265 Name: CHIRANTAN MONDAL Age/G: 33 Y 0 M 0 D / M Date: 25-03-2023

#### Note:

- 1. All urine samples are checked for adequacy and suitability before examination.
- 2. Analysis by urine analyzer of dipstick is based on reflectance photometry principle. Abnormal results of chemical examinations are confirmed by manual methods.
- 3. The first voided morning clean-catch midstream urine sample is the specimen of choice for chemical and microscopic analysis.
- 4. Negative nitrite test does not exclude urinary tract infections.
- 5. Trace proteinuria can be seen in many physiological conditions like exercise, pregnancy, prolonged recumbency etc.
- 6. False positive results for glucose, protein, nitrite, urobilinogen, bilirubin can occur due to use of certain drugs, therapeutic dyes, ascorbic acid, cleaning agents used in urine collection container.
- 7. Discrepancy between results of leukocyte esterase and blood obtained by chemical methods with corresponding pus cell and red blood cell count by microscopy can occur due to cell lysis.
- 8. Contamination from perineum and vaginal discharge should be avoided during collection, which may falsely elevate epithelial cell count and show presence of bacteria and/or yeast in the urine.

#### BLOOD GROUP ABO+RH [GEL METHOD], EDTA WHOLE BLOOD

 ABO
 B
 Gel Card

 RH
 POSITIVE
 Gel Card

#### **TECHNOLOGY USED: GEL METHOD**

#### ADVANTAGES:

- · Gel card allows simultaneous forward and reverse grouping.
- Card is scanned and record is preserved for future reference.
- · Allows identification of Bombay blood group.
- Daily quality controls are run allowing accurate monitoring.

Historical records check not performed.

DR. NEHA GUPTA MD, DNB (Pathology) Consultant Pathologist

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GLUCOSE, PP, BLOOD, NAF PLASMA

GLUCOSE,PP 92 mg/dL Impaired Glucose Tolerance-140 Gluc Oxidase Trinder

Diabetes>= 200.

The test should be performed as described by the WHO, using a glucose load containing the equivalent of 75-g anhydrous glucose dissolved in water. In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results from the same sample or in two separate test samples.

mg/dL

GLUCOSE, FASTING

ADA Standards of Medical Care in Diabetes – 2020. Diabetes Care Volume 43, Supplement 1.

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GLUCOSE, FASTING, BLOOD, NAF PLASMA

Impaired Fasting-100-125. Gluc Oxidase Trinder Diabetes- >= 126.

Fasting is defined as no caloric intake for at least 8 hours.

In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results from the same sample or in two separate test samples.

ADA Standards of Medical Care in Diabetes – 2020. Diabetes Care Volume 43, Supplement 1.

DR. ANANNYA GHOSH MBBS, MD (Biochemistry) Consultant Biochemist



Patient Name : CHIRANTAN MONDAL Ref Dr. : Dr.MEDICAL OFFICER

**Age** : 33 Y 0 M 0 D

Gender : M Report Date : 25/Mar/2023 07:42PM



# X-RAY REPORT OF CHEST (PA)

Lab Add.

**Collection Date:** 

# **FINDINGS:**

No active lung parenchymal lesion is seen.

Both the hila are normal in size, density and position.

Mediastinum is in central position. Trachea is in midline.

Domes of diaphragm are smoothly outlined. Position is within normal limits.

Lateral costo-phrenic angles are clear.

The cardio-thoracic ratio is normal.

Bony thorax reveals no definite abnormality.

DR. BIPLAB KR. GHOSH MD(CAL), RADIO-DIAGNOSIS

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Patient Name : CHIRANTAN MONDAL Ref Dr. : Dr.MEDICAL OFFICER

Age : 33 Y 0 M 0 D Collection Date:

**Gender**: M **Report Date**: 25/Mar/2023 04:54PM



# DEPARTMENT OF ULTRASONOGRAPHY REPORT ON EXAMINATION OF WHOLE ABDOMEN

#### **LIVER**

Liver is enlarged in size (15.20 cm) having grade I fatty change. No focal parenchymal lesion is evident. Intrahepatic biliary radicles are not dilated. Branches of portal vein are normal.

#### **PORTA**

The appearance of porta is normal. Common bile duct is normal (0.40 cm) with no intraluminal pathology (calculi /mass) could be detected at its visualised part. Portal vein is normal (1.00 cm) at porta.

### **GALLBLADDER**

Gallbladder is distended. Wall thickness appears normal. No intraluminal pathology (calculi/mass) could be detected. Sonographic Murphys sign is negative.

#### **PANCREAS**

Echogenecity appears within limits, without any focal lesion. Shape, size & position appears normal. No Calcular disease noted. Pancreatic duct is not dilated. No peri-pancreatic collection of fluid noted.

### **SPLEEN**

Spleen is normal in size (9.42 cm). Homogenous and smooth echotexture without any focal lesion. Splenic vein at hilum appears normal. No definite collaterals could be detected.

## **KIDNEYS**

Both kidneys are normal in shape, size (Rt. kidney 10.84 cm. & Lt. kidney 10.05 cm) axes & position. Cortical echogenecity appears normal maintaining cortico-medullary differentiation. Margin is regular and cortical thickness is uniform. No calcular disease noted. No hydronephrotic changes detected.

#### **URETERS**

Visualised part of upper ureters are not dilated.

### **URINARY BLADDER**

Urinary bladder is distended, wall thickness appeared normal. No intraluminal pathology (calculi / mass) could be detected.

#### **PROSTATE**

Prostate is normal in size. Echotexture appears within normal limits. No focal alteration of its echogenecity could be detectable.

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Patient Name : CHIRANTAN MONDAL

**Age** : 33 Y 0 M 0 D

Gender : M

It measures : 3.30 cm. x 3.12 cm. x 3.04 cm.

Approximate weight could be around = 16.37 gms.

#### Lab Add. :

**Ref Dr.** : Dr.MEDICAL OFFICER

**Collection Date:** 

**Report Date** : 25/Mar/2023 04:54PM



## **RETROPERITONEUM & PERITONEUM**

No ascites noted. No definite evidence of any mass lesion detected. No detectable evidence of enlarged lymph nodes noted. Visualized part of aorta & IVC are within normal limit.

### **IMPRESSION:**

Hepatomegaly with grade I fatty change.

#### **KINDLY NOTE**

Ultrasound is not the modality of choice to rule out subtle bowel lesion.

Please Intimate us for any typing mistakes and send the report for correction within 7 days.

The science of Radiological diagnosis is based on the interpretation of various shadows produced by both the normal and abnormal tissues and are not always conclusive. Further biochemical and radiological investigation & clinical correlation is required to enable the clinician to reach the final diagnosis.

Patient Identity not verified

DR. S. K. MONDAL MBBS, CBET

(Sonologist)

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Patient Name : CHIRANTAN MONDAL

**Age** : 33 Y 0 M 0 D

**Gender**: M **Report Date**: 25/Mar/2023 07:03PM



# DEPARTMENT OF CARDIOLOGY E.C.G. REPORT

Lab Add.

**Collection Date:** 

: Dr.MEDICAL OFFICER

Ref Dr.

Heart rate - 64 / min. (average)

Rhythm - Sinus

Axis - Normal

P- Wave - Normal

PR Interval - Normal

**QRS** Complexes - Normal

ST Segment - Isoelectric

T Wave - Normal

**QT Interval - Normal** 

**Voltage - Normal** 

**IMPRESSION**: Normal tracing. Please correlate clinically.

Dr SANIAY SUD MBBS (Cal), FCCP, MRI PHH(UK) ECHO CARDIOLOGIST

**Lab No.** : SRE/25-03-2023/SR7450265

# SURAKSHA DIAGNOSTIC,RAJARHAT,KOLKATA BIO-RAD VARIANT-II TURBO CDM5.4. SN-16122

# PATIENT REPORT V2TURBO\_A1c\_2.0

Patient Data Analysis Data

Sample ID: C02135004703 Analysis Performed: 25/MAR/2023 15:35:27

 Patient ID:
 SR7450265
 Injection Number:
 8216U

 Name:
 Run Number:
 190

 Physician:
 Rack ID:
 0004

 Sex:
 Tube Number:
 2

DOB: Report Generated: 25/MAR/2023 15:54:19

Operator ID: ASIT

Comments:

	NGSP		Retention	Peak
Peak Name	%	Area %	Time (min)	Area
A1a		0.8	0.160	12763
A1b		0.8	0.223	13679
F		0.4	0.275	7393
LA1c		1.5	0.402	25621
A1c	4.6		0.510	59302
P3		3.0	0.789	50195
P4		1.0	0.869	17429
Ao		88.8	0.991	1480418

Total Area: 1,666,801

## HbA1c (NGSP) = 4.6 % HbA1c (IFCC) = 27 mmol/mol

