



Lab No. : CHP/25-02-2023/SR7337992
Patient Name : SOURJA THAKUR
Age : 32 Y 4 M 25 D
Gender : M

Lab Add. : Newtown, Kolkata-700156
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date: 25/Feb/2023 08:53AM
Report Date : 25/Feb/2023 12:48PM



Test Name	Result	Unit	Bio Ref. Interval	Method
BILIRUBIN (DIRECT) , GEL SERUM				
BILIRUBIN (DIRECT)	0.20	mg/dL	<0.2 mg/dL	Vanadate oxidation
SGOT/AST , GEL SERUM				
SGOT/AST	48.00	U/L	13-40 U/L	Modified IFCC
SODIUM, BLOOD , GEL SERUM				
SODIUM,BLOOD	138.00	mEq/L	132 - 146 mEq/L	ISE INDIRECT
*CHLORIDE, BLOOD , .				
CHLORIDE,BLOOD	100.00	mEq/L	99-109 mEq/L	ISE INDIRECT
CREATININE, BLOOD , GEL SERUM				
CREATININE,BLOOD	0.98	mg/dL	0.7-1.3 mg/dL	Jaffe, alkaline picrate, kinetic
URIC ACID, BLOOD , GEL SERUM				
URIC ACID,BLOOD	4.30	mg/dL	3.5-7.2 mg/dL	Uricase/Peroxidase
CALCIUM, BLOOD				
CALCIUM,BLOOD	9.20	mg/dL	8.7-10.4 mg/dL	Arsenazo III
POTASSIUM, BLOOD , GEL SERUM				
POTASSIUM,BLOOD	4.00	mEq/L	3.5-5.5 mEq/L	ISE INDIRECT
SGPT/ALT , GEL SERUM				
SGPT/ALT	67.00	U/L	7-40 U/L	Modified IFCC
GLUCOSE, FASTING , BLOOD, NAF PLASMA				
GLUCOSE,FASTING	101	mg/dL	Impaired Fasting-100-125 . Diabetes- >= 126. Fasting is defined as no caloric intake for at least 8 hours.	Gluc Oxidase Trinder
<i>In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results from the same sample or in two separate test samples.</i>				
<i>Reference : ADA Standards of Medical Care in Diabetes – 2020. Diabetes Care Volume 43, Supplement 1.</i>				
BILIRUBIN (TOTAL) , GEL SERUM				
BILIRUBIN (TOTAL)	0.70	mg/dL	0.3-1.2 mg/dL	Vanadate oxidation
LIPID PROFILE , GEL SERUM				
CHOLESTEROL-TOTAL	151.00	mg/dL	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	Enzymatic
TRIGLYCERIDES	103.00	mg/dL	Normal:: < 150, BorderlineHigh::150-199, High:: 200-499, VeryHigh::>500	GPO-Trinder
HDL CHOLESTEROL	40.00	mg/dl	< 40 - Low 40-59- Optimum 60 - High	Elimination/catalase



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LDL CHOLESTEROL DIRECT	106.0	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 Elimination / Catalase
VLDL	5	mg/dl	< 40 mg/dl Calculated
CHOL HDL Ratio	3.8		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.

TOTAL PROTEIN [BLOOD] ALB:GLO RATIO , .

TOTAL PROTEIN	7.70	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	3.00	g/dl	1.8-3.2 g/dl	Calculated
AG Ratio	1.57		1.0 - 2.5	Calculated

ALKALINE PHOSPHATASE , GEL SERUM

ALKALINE PHOSPHATASE	82.00	U/L	46-116 U/L	IFCC standardization
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UREA,BLOOD

	15.0	mg/dL	19-49 mg/dL	Urease with GLDH
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PHOSPHORUS-INORGANIC, BLOOD , GEL SERUM

PHOSPHORUS-INORGANIC,BLOOD	2.9	mg/dL	2.4-5.1 mg/dL	Phosphomolybdate/UV
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Dr. SUPARBA CHAKRABARTI
MBBS, MD(BIOCHEMISTRY)
Consultant Biochemist



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Name : SOURJA THAKUR

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URINE ROUTINE ALL, ALL , URINE

PHYSICAL EXAMINATION

COLOUR PALE YELLOW
APPEARANCE SLIGHTLY HAZY

CHEMICAL EXAMINATION

pH	6.0	4.6 - 8.0	Dipstick (triple indicator method)
SPECIFIC GRAVITY	1.010	1.005 - 1.030	Dipstick (ion concentration method)
PROTEIN	PRESENT(+)	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	PRESENT(+)	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)

MICROSCOPIC EXAMINATION

LEUKOCYTES (PUS CELLS)	2-3	/hpf	0-5	Microscopy
EPITHELIAL CELLS	0-1	/hpf	0-5	Microscopy
RED BLOOD CELLS	1-2	/hpf	0-2	Microscopy
CAST	GRANULAR CAST PRESENT		NOT DETECTED	Microscopy
CRYSTALS	NOT DETECTED		NOT DETECTED	Microscopy
BACTERIA	SCANTY		NOT DETECTED	Microscopy
YEAST	NOT DETECTED		NOT DETECTED	Microscopy

Note:

- All urine samples are checked for adequacy and suitability before examination.
- Analysis by urine analyzer of dipstick is based on reflectance photometry principle. Abnormal results of chemical examinations are confirmed by manual methods.
- The first voided morning clean-catch midstream urine sample is the specimen of choice for chemical and microscopic analysis.
- Negative nitrite test does not exclude urinary tract infections.
- Trace proteinuria can be seen in many physiological conditions like exercise, pregnancy, prolonged recumbency etc.
- 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.
- 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.
- 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.

CBC WITH PLATELET & RETICULOCYTE COUNT , EDTA WHOLE BLOOD

HEMOGLOBIN	16.4	g/dL	13 - 17	PHOTOMETRIC
WBC	7.1	*10 ³ /μL	4 - 10	DC detection method
RBC	5.22	*10 ⁶ /μL	4.5 - 5.5	DC detection method
PLATELET (THROMBOCYTE) COUNT	204	*10 ³ /μL	150 - 450*10 ³ /μL	DC detection method/Microscopy

DIFFERENTIAL COUNT

NEUTROPHILS	75	%	40 - 80 %	Flowcytometry/Microscopy
LYMPHOCYTES	18	%	20 - 40 %	Flowcytometry/Microscopy
MONOCYTES	06	%	2 - 10 %	Flowcytometry/Microscopy
EOSINOPHILS	01	%	1-6%	Flowcytometry/Microscopy
BASOPHILS	00	%	0-0.9%	Flowcytometry/Microscopy

CBC SUBGROUP 1

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HEMATOCRIT / PCV	46.1	%	40 - 50 %	Calculated
MCV	88.4	fl	83 - 101 fl	Calculated
MCH	31.5	pg	27 - 32 pg	Calculated
MCHC	35.7	gm/dl	31.5-34.5 gm/dl	Calculated
RDW - RED CELL DISTRIBUTION WIDTH	14.7	%	11.6-14%	Calculated
RETICULOCYTE COUNT-AUTOMATED,BLOOD	0.3	%	0.5-2.5%	Cell Counter/Microscopy

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



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ESR (ERYTHROCYTE SEDIMENTATION RATE) , EDTA WHOLE BLOOD

1stHour **30** mm/hr 0.00 - 20.00 mm/hr Westergren

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

ABO A 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. PANKTI PATEL
MBBS , MD (PATHOLOGY)
CONSULTANT PATHOLOGIST



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URIC ACID, URINE, SPOT URINE

URIC ACID, SPOT URINE 44.00 mg/dL 37-92 mg/dL URICASE

GLUCOSE, PP , BLOOD, NAF PLASMA

GLUCOSE,PP 113 mg/dL Impaired Glucose Tolerance-140 to 199. Diabetes>= 200. Gluc Oxidase Trinder

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.

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

THYROID PANEL (T3, T4, TSH) , GEL SERUM

T3-TOTAL (TRI IODOTHYRONINE) 1.51 ng/ml 0.60-1.81 ng/ml CLIA
 T4-TOTAL (THYROXINE) 11.5 µg/dL 3.2-12.6 µg/dL CLIA
 TSH (THYROID STIMULATING HORMONE) 4.18 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 µ IU/mL
 SECOND TRIMESTER: 0.20 -3.50 µ IU/mL
 THIRD TRIMESTER : 0.30 -3.50 µ 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. <http://doi.org/10.1089/thy.2016.0457>
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.

[PDF Attached](#)

GLYCATED HAEMOGLOBIN (HBA1C) , EDTA WHOLE BLOOD

GLYCATED HEMOGLOBIN (HBA1C) 5.5 % ***FOR BIOLOGICAL REFERENCE INTERVAL DETAILS , PLEASE REFER TO THE BELOW MENTIONED

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REMARKS/NOTE WITH
ADDITIONAL CLINICAL
INFORMATION ***

HbA1c (IFCC) 37.0 mmol/mol HPLC

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)
Diabetics-HbA1c level : >= 6.5% (NGSP) / > 48 mmol/mol (IFCC)

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.
- 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.
- Ø **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 B₁₂/ 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.

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



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DEPARTMENT OF CARDIOLOGY
REPORT OF E.C.G.

DATA		
HEART RATE	70	Bpm
PR INTERVAL	144	Ms
QRS DURATION	84	Ms
QT INTERVAL	360	Ms
QTC INTERVAL	391	Ms
AXIS		
P WAVE	51	Degree
QRS WAVE	37	Degree
T WAVE	17	Degree
IMPRESSION	: Normal sinus rhythm, within normal limits.	

Dr. SOUMEN MAJUMDAR
Department of Non-invasive
Cardiology



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DEPARTMENT OF ULTRASONOGRAPHY
REPORT ON EXAMINATION OF WHOLE ABDOMEN

LIVER

Liver is enlarged in size (163 mm) having normal shape & shows increased echogenicity. An isoechoic to hypoechoic lesion measuring 28 mm x 19 mm is noted in right lobe of liver. Intrahepatic biliary radicles are not dilated. Branches of portal vein are normal.

PORTA

The appearance of porta is normal. Common Bile duct is 3 mm. with no intraluminal pathology (Calculi /mass) could be detected at its visualised part. Portal vein is normal (9 mm.) at porta.

GALL BLADDER

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

PANCREAS

Echogenicity 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 (100 mm). Homogenous and smooth echotexture without any focal lesion. Splenic vein at hilum appears normal. No definite collaterals could be detected.

KIDNEYS

Both the kidneys are normal in shape, size (Rt. kidney 113 mm. & Lt. kidney 111 mm.) axes & position. Cortical echogenicity appears normal maintaining cortico-medullary & cortico-hepatic differentiation. Margin is regular and cortical thickness is uniform. No calcular disease noted. No hydronephrotic changes detected. 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 echogenicity could bedetectable.

It measures : 34 mm x 35 mm x 24 mm.

Approximate weight could be around = 15 gms

RETROPERITONEUM , PERITONEUM & LOWER PLEURAL SPACE

No ascites noted. No definite evidence of any mass lesion detected. No detectable evidence of enlarged lymph nodes noted. Visualised part of aorta & IVC are within normal limit.No effusion noted at costo-phrenic angles.



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IMPRESSION

Hepatomegaly with fatty changes (grade - I) with an isoechoic to hypoechoic lesion (28 mm x 19 mm) in right lobe of liver.

-- Correlate clinically & other relevant investigations suggested.

Kindly note

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

Ø 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.

The report and films are not valid for medico-legal purpose.

Patient Identity not verified.

DR GITA BAIDYAA
CONSULTANT SONOLOGIST



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X-RAY REPORT OF CHEST (PA)

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.

IMPRESSION :

Normal study.

DR. SUDIPTA SARKAR
MBBS,MD (Radio- Diagnosis)
DNB (Radio-Diagnosis), MNAMS
EDIR, D-ICRI, FRCR (UK)

Patient Data

Sample ID: C02135002848
 Patient ID: SR7337992
 Name:
 Physician:
 Sex:
 DOB:

Analysis Data

Analysis Performed: 25/FEB/2023 12:45:51
 Injection Number: 3047U
 Run Number: 63
 Rack ID: 0004
 Tube Number: 5
 Report Generated: 25/FEB/2023 13:00:23
 Operator ID: anup

Comments:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
Unknown	---	0.1	0.113	2235
A1a	---	1.0	0.162	16912
A1b	---	1.1	0.221	18453
F	---	0.9	0.275	14621
LA1c	---	1.9	0.399	33111
A1c	5.5	---	0.504	76765
P3	---	3.6	0.786	61065
P4	---	1.3	0.866	22216
Ao	---	85.7	0.996	1466519

Total Area: 1,711,896

HbA1c (NGSP) = 5.5 % HbA1c (IFCC) = 37 mmol/mol

