

Lab No. : GAR/18-03-2023/SR7422125
Patient Name : KAUSTAV BAGCHI
Age : 39 Y 8 M 13 D
Gender : M

Lab Add. : Newtown, Kolkata-700156
Ref Dr. : Dr.MEDICAL OFFICER
Collection Date: 18/Mar/2023 10:19AM
Report Date : 18/Mar/2023 03:22PM



Test Name	Result	Unit	Bio Ref. Interval	Method
BILIRUBIN (DIRECT) , GEL SERUM BILIRUBIN (DIRECT)	0.10	mg/dL	<0.2 mg/dL	Vanadate oxidation
POTASSIUM, BLOOD , GEL SERUM POTASSIUM,BLOOD	4.10	mEq/L	3.5-5.5 mEq/L	ISE INDIRECT
UREA,BLOOD , GEL SERUM UREA,BLOOD	19.3	mg/dL	19-49 mg/dL	Urease with GLDH
URIC ACID, BLOOD , GEL SERUM URIC ACID,BLOOD	7.80	mg/dL	3.5-7.2 mg/dL	Uricase/Peroxidase
BILIRUBIN (TOTAL) , GEL SERUM BILIRUBIN (TOTAL)	0.90	mg/dL	0.3-1.2 mg/dL	Vanadate oxidation
PHOSPHORUS-INORGANIC, BLOOD , GEL SERUM PHOSPHORUS-INORGANIC,BLOOD	3.6	mg/dL	2.4-5.1 mg/dL	Phosphomolybdate/UV
ALKALINE PHOSPHATASE , GEL SERUM ALKALINE PHOSPHATASE	84	U/L	46-116 U/L	IFCC standardization
CREATININE, BLOOD CREATININE,BLOOD	0.82	mg/dL	0.7-1.3 mg/dL	Jaffe, alkaline picrate, kinetic
SODIUM, BLOOD , GEL SERUM SODIUM,BLOOD	137	mEq/L	132 - 146 mEq/L	ISE INDIRECT
*CHLORIDE, BLOOD , . CHLORIDE,BLOOD	103	mEq/L	99-109 mEq/L	ISE INDIRECT

□

Dr NEEPA CHOWDHURY
MBBS MD (Biochemistry)
Consultant Biochemist



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SGOT/AST , GEL SERUM

SGOT/AST **43** U/L 13-40 U/L Modified IFCC

SGPT/ALT , GEL SERUM

SGPT/ALT **83** U/L 7-40 U/L Modified IFCC

CALCIUM, BLOOD

CALCIUM,BLOOD 9.40 mg/dL 8.7-10.4 mg/dL Arsenazo III


LIPID PROFILE , GEL SERUM

CHOLESTEROL-TOTAL	185	mg/dL	Desirable: < 200 mg/dL Borderline high: 200-239 mg/dL High: > or =240 mg/dL	Enzymatic
TRIGLYCERIDES	321	mg/dL	Normal: < 150, BorderlineHigh::150-199, High: 200-499, VeryHigh::>500	GPO-Trinder
HDL CHOLESTEROL	31	mg/dl	< 40 - Low 40-59- Optimum 60 - High	Elimination/catalase
LDL CHOLESTEROL DIRECT	123	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	31	mg/dl	< 40 mg/dl	Calculated
CHOL HDL Ratio	6.0		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	4.6	g/dL	3.2-4.8 g/dL	BCG Dye Binding
GLOBULIN	3.10	g/dl	1.8-3.2 g/dl	Calculated
AG Ratio	1.48		1.0 - 2.5	Calculated


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



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CBC WITH PLATELET (THROMBOCYTE) COUNT , EDTA WHOLE BLOOD

HEMOGLOBIN	12.8	g/dL	13 - 17	PHOTOMETRIC
WBC	6.8	*10 ³ /μL	4 - 10	DC detection method
RBC	4.36	*10 ⁶ /μL	4.5 - 5.5	DC detection method
PLATELET (THROMBOCYTE) COUNT	177	*10 ³ /μL	150 - 450*10 ³ /μL	DC detection method/Microscopy

DIFFERENTIAL COUNT

NEUTROPHILS	49	%	40 - 80 %	Flowcytometry/Microscopy
LYMPHOCYTES	38	%	20 - 40 %	Flowcytometry/Microscopy
MONOCYTES	06	%	2 - 10 %	Flowcytometry/Microscopy
EOSINOPHILS	07	%	1 - 6 %	Flowcytometry/Microscopy
BASOPHILS	00	%	0-0.9%	Flowcytometry/Microscopy

CBC SUBGROUP

HEMATOCRIT / PCV	39.4	%	40 - 50 %	Calculated
MCV	90.4	fl	83 - 101 fl	Calculated
MCH	29.3	pg	27 - 32 pg	Calculated
MCHC	32.5	gm/dl	31.5-34.5 gm/dl	Calculated
RDW - RED CELL DISTRIBUTION WIDTH	14.7	%	11.6-14%	Calculated
PDW-PLATELET DISTRIBUTION WIDTH	31.5	fL	8.3 - 25 fL	Calculated
MPV-MEAN PLATELET VOLUME	13.8		7.5 - 11.5 fl	Calculated

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.

URINE ROUTINE ALL, ALL , URINE

PHYSICAL EXAMINATION

COLOUR	PALE YELLOW
APPEARANCE	SLIGHTLY HAZY

CHEMICAL EXAMINATION

pH	5.0	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)

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LEUCOCYTE ESTERASE POSITIVE(+) NEGATIVE Dipstick (ester hydrolysis reaction)

MICROSCOPIC EXAMINATION

LEUKOCYTES (PUS CELLS)	3-5	/hpf	0-5	Microscopy
EPITHELIAL CELLS	1-2	/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

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.

ESR (ERYTHROCYTE SEDIMENTATION RATE) , EDTA WHOLE BLOOD

1stHour 20 mm/hr 0.00 - 20.00 mm/hr Westergren

Dr Mansi Gulati
Consultant Pathologist
MBBS, MD, DNB (Pathology)



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GLUCOSE, FASTING , BLOOD, NAF PLASMA

GLUCOSE,FASTING	90	mg/dL	Impaired Fasting-100-125 . Diabetes- >= 126. Fasting is defined as no caloric intake for at least 8 hours.	Gluc Oxidase Trinder
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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.

[PDF Attached](#)

GLYCATED HAEMOGLOBIN (HBA1C) , EDTA WHOLE BLOOD

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

URIC ACID, URINE, SPOT URINE

URIC ACID, SPOT URINE	21.00	mg/dL	37-92 mg/dL	URICASE
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ESTIMATED TWICE

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

T3-TOTAL (TRI IODOTHYRONINE)	1.03	ng/ml	0.60-1.81 ng/ml	CLIA
T4-TOTAL (THYROXINE)	5.1	µg/dL	3.2-12.6 µg/dL	CLIA

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TSH (THYROID STIMULATING HORMONE) 4.87	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.

GLUCOSE, PP , BLOOD, NAF PLASMA

GLUCOSE,PP	158	mg/dL	Impaired Glucose Tolerance-140 to 199. Diabetes >= 200.
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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.

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

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Report Date : 18/Mar/2023 02:32PM



X-RAY REPORT OF CHEST (PA)

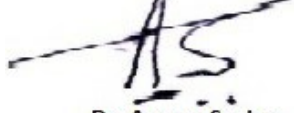
FINDINGS :

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. Anoop Sastry
MBBS, DMRT(CAL)
CONSULTANT RADIOLOGIST
Registration No.: WB-36628

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Patient Name : KAUSTAV BAGCHI
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Gender : M

Lab Add. :
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Collection Date:
Report Date : 18/Mar/2023 12:07PM



DEPARTMENT OF ULTRASONOGRAPHY
REPORT ON EXAMINATION OF WHOLE ABDOMEN

LIVER

Liver is mildly enlarged in size (149 mm) having normal shape and shows 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 (4.8 mm) with no intraluminal pathology (Calculi /mass) could be detected at its visualised part. Portal vein is normal (9.5 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 (88 mm). 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 116 mm. & Lt. kidney 121 mm) & position. Cortical echogenicity appears normal maintaining corticomedullary 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 echogenicity could be detected.

It measures : 35 mm x 31 mm x 24 mm.

Approximate weight could be around = 14 gms.

IMPRESSION

Mild hepatomegaly with grade-I fatty change.

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-----Please correlate clinically.

Kindly note

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

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.

*Kalpna Gupta
(Chakravarty)*

KALPANA GUPTA (CHAKRAVARTY)
Consultant Sonologist
Reg – 39975 (WB)

Lab No. : GAR/18-03-2023/SR7422125
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DEPARTMENT OF CARDIOLOGY
REPORT OF E.C.G.

Clinical Indication	Part of regular study.
Heart Rate	81 beats /min
Rhythm	Regular.
PR	152 ms
QRS	144 ms
QTc	427 ms
Axis	Normal.
P-wave morphology	Normal.
Impression	Regular, narrow complex rhythm of sino-atrial origin, at 81 bpm. Right bundle branch block, classical pattern.

DR SOUMIK CHATTERJEE
CONSULTANT PHYSICIAN (GOLD MEDALIST)
National Excellence Award Honoree

Patient Data

Sample ID: C02135012426
 Patient ID: SR7422125
 Name:
 Physician:
 Sex:
 DOB:

Analysis Data

Analysis Performed: 18/MAR/2023 15:45:24
 Injection Number: 9146U
 Run Number: 210
 Rack ID: 0004
 Tube Number: 8
 Report Generated: 18/MAR/2023 15:57:53
 Operator ID: ASIT

Comments:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	0.8	0.155	23242
A1b	---	1.1	0.215	31343
F	---	0.8	0.267	23669
LA1c	---	1.7	0.399	47853
A1c	5.5	---	0.506	129827
P3	---	3.3	0.791	94520
P4	---	1.2	0.870	33433
Ao	---	86.5	0.984	2465231

Total Area: 2,849,117

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

