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Laboratory Test Report

Barcode No:	00481222	Reg No.	167521
Patient Name:	MR. BHARAT BHUSAN	Reg Date	25-Jun-2024 10:49 AM
Age/Sex:	54Y 0M 0D/Male	Sample Coll. Date	25-Jun-2024 10:49 AM
Refered By:	SELF	Sample Rec.Date	25-Jun-2024 10:50 AM
Client Code/Name:	HR023-VISHAL	Report Date:	25-Jun-2024 10:54 AM
Panel Address:	KTL		

HAEMATOLOGY

HS1.1

TestName	Result	Flag	Biological Ref. Range/Unit
CBC (Complete Blood Count), Whole Blood EDTA			
Hemoglobin (Hb) Photometric Cyanmethemoglobin Method	12.60	Low	13.0-17.0 gm/dl
Erythrocyte Count (RBCs Counts) Optical Flow Cytometry	4.29	Low	4.5–5.5 10^6/uL
Packed Cell Volume (PCV) Hematocrit RBC Pulse Hight Detection	39.00	Low	40-50 %
Mean Corpuscular Volume (MCV) Automated/Calculated	90.90	Normal	83 - 101 fL
Mean Corpuscular Hemoglobin (MCH) Automated/Calculated	29.30	Normal	24-32 pg/cell
Mean Corpuscular Hb concentration (MCHC) Automated/Calculated	32.20	Normal	28 - 35 g/dL
Red Blood Cell Distribution Width Coefficient of Variation (RDW-CV) Automated/Calculated	16.40	Normal	11.7 - 17.2 %
Red Blood Cell Distribution Width Standard Deviation (RDW-SD) Automated/Calculated	57.40	Normal	36.4 - 58.0 10^3/uL
Platelet Count Automated Optical Flow Cytometry /Manual Calculated	139	Low	150-410 10^3/ul
Plateletcrit (PCT) Automated Optical Flow Cytometry /Manual Calculated	0.15	Normal	0.15 - 0.39 %
Mean Platelet Volume (MPV) Automated/Calculated	10.30	Normal	7.0- 12.5 %
Platelet Distribution Width (PDW) Automated/Calculated	15.7	Normal	9.2-17.9 %
Platelet-Large Cell Count (P-LCC) Automated/Calculated	40.0	Normal	
Platelet Larger Cell Ratio (P-LCR) Automated/Calculated	33.80	Normal	18.5 - 68.0 %
Total Leukocyte Count (TLC/WBC Counts) Impedance Flow Cytometry Manual Calculated	6.90	Normal	4.0-11 10^3/uL
Differential Leukocyte Count (DLC) Flow Cytometry/Microscopy			
Neutrophils Impedance Flow Cytometry/ Microscopy	57.0	Normal	40 - 75 %
Lymphocytes Impedance Flow Cytometry/ Microscopy	36.0	Normal	20 - 40 %
Monocytes Impedance Flow Cytometry/ Microscopy	3.0	Normal	2 - 10 %
Eosinophils Impedance Flow Cytometry/ Microscopy	4.0	Normal	1 - 6 %

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CONSULTANT PATHOLOGIST, DMC NO-35664

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CONSULTANT BIOCHEMIST
Ph.D (MEDICAL BIOCHEMISTRY)

Please correlate with clinical condition. Test results may
If Test results are alarming

Barcode No:	00481225	Reg No.	167521
Patient Name:	MR. BHARAT BHUSAN	Reg Date	25-Jun-2024 10:49 AM
Age/Sex:	54Y 0M 0D/Male	Sample Coll. Date	25-Jun-2024 10:49 AM
Refered By:	SELF	Sample Rec.Date	25-Jun-2024 10:50 AM
Client Code/Name:	HR023-VISHAL	Report Date:	25-Jun-2024 10:55 AM
Panel Address:	KTL		

BIOCHEMISTRY & IMMUNOLOGY

HS1.1

TestName	Result	Flag	Biological Ref. Range/Unit
Liver Function Test (LFT) - Extended, Serum			
Bilirubin Total Mod.Jendrassik and Grof's Method	0.75	Normal	0.1-1.2 mg/dL
Bilirubin Direct DCA METHOD	0.21	Normal	0.00 - 0.30 mg/dL
Bilirubin Indirect Calculated	0.54	Normal	0.1 - 1.10 mg/dL
Aspartate Transaminase (AST/SGOT) Mod.IFCC Method	51.36	High	0-50 U/L
Alanine Amino Transferase (ALT/SGPT) Mod.IFCC Method	67.13	High	3-50 U/L
SGOT/SGPT Ratio Automated/Calculated	0.77	Normal	0.00 - 3.50 g/dL
Alkaline Phosphatase (ALP) Mod. IFCC Method	82.85	Normal	43-115 U/L
Gamma Glutamyl Transferase (GGT) Carboxy Substrate Method	15.20	Normal	5 - 64 U/L
Protein Total Biuret Method	7.09	Normal	6.4-8.3 g/dL
Albumin BCG (Bromo Cresol Green) Method	3.84	Normal	3.5-5.6 g/dL
Globulin Automated/Calculated	3.25	Normal	2.5 - 3.8 g/dL
Albumin/Globulin Ratio (A/G) Automated/Calculated	1.18	Normal	1.00 - 2.30 g/dL

CLINICAL COMMENTS: Liver function tests can be suggested in case of hepatitis, liver cirrhosis and monitor possible side effects of medications. A variety of diseases and infections can cause acute or chronic damage to the liver, causing inflammation (hepatitis), scarring (cirrhosis), bile duct obstructions, liver tumors, and liver dysfunction. Alcohol, drugs, some herbal supplements, and toxins can also injure the liver. A significant amount of liver damage may occur before symptoms such as jaundice, dark urine, light-colored stools, itching (pruritus), nausea, fatigue, diarrhea, and unexplained weight loss or gain appear. Early detection of liver injury is essential in order to minimize damage and preserve liver function. **Alanine aminotransferase (ALT)** A very high level of ALT is frequently seen with acute hepatitis. Moderate increases may be seen with chronic hepatitis. People with blocked bile ducts, cirrhosis, and liver cancer may have ALT concentrations that are only moderately elevated or close to normal. **Aspartate aminotransferase (AST)** A very high level of AST is frequently seen with acute hepatitis. AST may be normal to moderately increased with chronic hepatitis. In people with blocked bile ducts, cirrhosis, and liver cancer, AST concentrations may be moderately increased or close to normal. When liver damage is due to alcohol, AST often increases much more than ALT (this is a pattern seen with few other liver diseases). AST is also increased after heart attacks and with muscle injury. AST is a less sensitive and less specific marker of liver injury than ALT. AST is more elevated than ALT in alcohol-induced liver injury. AST could elevated more than ALT like: (i) alcoholic liver disease results in mitochondrial toxicity and pyridoxal phosphate, which is a co-factor for AST; (ii) Wilson disease results in subclinical haemolysis and release of AST; (iii) the presence of liver cirrhosis; once liver cirrhosis is established, AST remains higher than ALT because of destroyed mitochondrial architecture, which results in impaired clearance of AST. **Alkaline phosphatase (ALP)** may be significantly increased with obstructed bile ducts, cirrhosis, liver cancer, and also with bone disease. Albumin is often normal in liver disease but may be low due to decreased production, especially in liver cirrhosis. Total protein (TP) is typically normal with liver disease. **Gamma-glutamyl transferase (GGT)** test may be used to help determine the cause of an elevated ALP. Both ALP and GGT are elevated in bile duct and liver disease, but only ALP will be elevated in bone disease. Increased GGT levels are also seen with alcohol consumption and with conditions, such as congestive heart failure.

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BIOCHEMISTRY & IMMUNOLOGY

HS1.1

TestName	Result	Flag	Biological Ref. Range/Unit
KIDNEY PROFILE (KFT), Serum			
Urea GLDH KINETIC METHOD	55.73	High	17.0-44.0 mg/dL
Creatinine ,Serum Enzymatic Pap Method	6.57	High	0.5-1.2 mg/dL
Uric Acid Uricase/ Pap Method	3.26	Low	3.5-7.2 mg/dL
Blood Urea Nitrogen (BUN)	26.04	High	6.0 - 20.0 mg/dL
[illegible]	3.96	Normal	0.00 - 23.0 mg/dL
Urea/Creatinine Ratio	8.48	Normal	0.00 - 45.0 mg/dL
Calcium Total	9.62	Normal	8.6 - 10.5 mg/dL
ELECTROLYTE PROFILE (*)			
Sodium	133.50	Low	135-145 mmol/L
Potassium	5.62	High	3.5-5.2 mmol/L
Chloride Serum	113.50	High	97.0–110 mmol/L

CLINICAL COMMENTS **UREA:** High urea levels suggest poor kidney function, congestive heart failure, shock, stress, recent heart attack or severe burns; bleeding from the gastrointestinal tract; conditions that cause obstruction of urine flow or dehydration. Low urea levels can be seen in severe liver disease or malnutrition but are not used to diagnose or monitor these conditions. Low urea levels are also seen in normal pregnancy. **CREATININE:** Increases in any renal functional impairment (intrinsic renal lesions, decreased perfusion of the kidney, or obstruction of the lower urinary tract), acromegaly and hyperthyroidism. Decreases in pregnancy, muscle wasting. **URIC ACID:** Increases in case of renal failure, disseminated neoplasms, pregnancy toxaemia, [illegible] leukaemia, liver disease, sarcoidosis etc. Decrease is reported in Wilson's disease, Fanconi's syndrome, xanthinuria. **SODIUM:** Increases due to water loss (severe diarrhea profuse sweating, polyuria or vomiting), hyperglyco- or mineralo-corticoidism, and inadequate water intake. Decreases due to intake of free water or hypotonic solutions. Dilutional hyponatremia (liver failure, cardiac failure, nephrotic syndrome, malnutrition, renal tubular abnormalities). **POTASSIUM:** Increases due to excess destruction of cells, redistribution of K^+ from the intra- to the extracellular compartment (crush injuries, massive hemolysis, malignant hyperpyrexia and hyperkinetic activity). Decreased renal K^+ excretion (acute renal failure, some cases of chronic renal failure, Addison's disease, and other sodium-depleted states). Decreases due to excess K^+ loss (vomiting, diarrhea, renal tubular defects,villous adenoma of the colorectum, hypercorticoidism, etc), Redistribution hypokalaemia (glucose/insulin therapy, alkalosis and periodic paralysis). **CHLORIDE:** Increases in case of dehydration, acute renal failure, renal tubular acidosis, diabetes insipidus, prolonged diarrhoea, respiratory alkalosis, salicylate toxicity, hypothalamic lesions, and adrenocortical hyperfunction. Decreases in case of excessive sweating, prolonged vomiting, adrenocortical deficiency, salt-losing nephropathy, acute intermittent porphyria, various acid base disturbances, expansion of extracellular fluid volume etc. **Urea nitrogen (BUN):** Increases in case of acute & chronic intrinsic renal disease, postrenal obstruction of urine, high protein intake. Decreases with high carbohydrate/low protein diets, increased anabolic demand (late pregnancy, infancy, acromegaly), malabsorption and starvation. **CALCIUM:** Increases in case of malignant neoplasms (with or without bone involvement), vit-D intoxication, primary and tertiary hyperparathyroidism, sarcoidosis, Paget's disease of bone (with immobilization), thyrotoxicosis, acromegaly, diuretic phase of renal acute tubular necrosis

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