Name	: Mrs. SUDESH	Patient UID.	: 5648996
Age/Gender	: 52 Yrs/Female	Visit No.	: 78512408060001
Referred Client	: LDPLK1229-SINHA CLINICAL LABORATORY	Collected on	: 06-Aug-2024 06:32PM
Referred By	: NA	Received on	: 06-Aug-2024 06:32PM
Doctor Name	:	Reported on	: 06-Aug-2024 08:29PM
Sample Type	: Serum - 14817966,Whole Blood EDTA - 14817967, -		

HAEMATOLOGY

Test Name	Results	Unit	Bio. Ref. Interval
COMPLETE BLOOD COUNT (CBC),WHOLE BLOOD EDTA			
HAEMOGLOBIN (Hb)	**9.3**	g/dL	12.0-15.0
Methodology: colorimetric method			
RED BLOOD CELLS- RBC COUNT	**2.94**	millions/mm³	3.8 - 4.8
Methodology: electric impedance			
PACKED CELL VOLUME (PCV) -HEMATOCRIT	**29.7**	%	40.0-50.0
Methodology: Pulse Height detection method			
MCV	**101.02**	fL	83-101
Methodology: Automated/Calculated			
MCH	31.63	pg	27.0-32.0
Methodology: by Automated/Calculated			
MCHC	**31.31**	g/dL	31.5-34.5
Methodology: Automated/Calculated			
RED CELL DISTRIBUTION WIDTH (RDW-CV)	**15.3**	%	11.6-14.0
Methodology: Automated/Calculated			
RED CELL DISTRIBUTION WIDTH (RDW-SD)	**55.0**	fL	39.0- 46.0
Methodology: Automated/Calculated			
MENTZER INDEX	34.36		
Methodology: Calculated			
PLATELET COUNT	**69**	10^3/µL	150-410
Methodology: electric impedance			
PLATELET DISTRIBUTION WIDTH (PDW)	15.9	fL	9.00-17.00
Methodology: Calculated			
PCT(PLATELETCRIT)	**0.079**	%	0.108-0.282
Methodology: Calculated			
MEAN PLATELET VOLUME - MPV	11.5	fL	7.00-12.0
Methodology: Plt Histogram			
P-LCR	38.80	%	11.0-45.0
Methodology: Calculated			
P-LCC	**27.00**	%	30.0-90.0
Methodology: Calculated			
TOTAL LEUKOCYTE COUNT (TLC)	5.03	10^3/µL	4.00-10.0
Methodology: electric impedance			
DIFFERENTIAL LEUCOCYTE COUNT			
Neutrophils	60.8	%	40 - 80
Methodology: Flow cytometry/Manual			
Lymphocytes	27.8	%	20 - 40
Methodology: Flow cytometry/Manual			
Eosinophils	5.0	%	1.00-6.00
Methodology: Flow cytometry/Manual			
Monocytes	6.2	%	2.00-10.0

DR. MD ARIF
MBBS, MD(PATHOLOGY)
LAB DIRECTOR
Reg. No. 34518

DR. PANKAJ VARSHNEY
MBBS, MD
CONSULTANT PATHOLOGIST
Reg. No. 66492

Name	: Mrs. SUDESH	Patient UID.	: 5648996
Age/Gender	: 52 Yrs/Female	Visit No.	: 78512408060001
Referred Client	: LDPLK1229-SINHA CLINICAL LABORATORY	Collected on	: 06-Aug-2024 06:32PM
Referred By	: NA	Received on	: 06-Aug-2024 06:32PM
Doctor Name	:	Reported on	: 06-Aug-2024 08:29PM
Sample Type	: Serum - 14817966,Whole Blood EDTA - 14817967, -		

Methodology: Flow cytometry/Manual

Basophils	0.2	%	0.00-1.00

Methodology: Flow cytometry/Manual

ABSOLUTE NEUTROPHIL COUNT	3.06	$10^3/\mu L$	2.00-7.00

Methodology: Calculated

ABSOLUTE LYMPHOCYTE COUNT	1.40	$10^3/\mu L$	1.00-3.00

ABSOLUTE EOSINOPHIL COUNT	0.25	$10^3/\mu L$	0.02-0.50

Methodology: Calculated

ABSOLUTE MONOCYTE COUNT	0.31	$10^3/\mu L$	0.20-1.00

Methodology: Calculated

ABSOLUTE BASOPHIL COUNT	0.01	$10^3/\mu L$	0.02-0.10

Methodology: Calculated

CLINICAL NOTES

A complete blood count (CBC) is used to evaluate overall health and detect wide range of disorders, including anemia, infection and leukemia.

There have been some reports of WBC and platelet counts being lower in venous blood than in capillary blood samples ,although still within these reference ranges.

POSSIBLE CAUSES OF ABNORMAL PARAMETERS:-

High RBC, Hb, or HCT - dehydration, polycythemia, shock, chronic hypoxia

Low RBC, Hb, or HCT - anemia, thalassemia, and other hemoglobinopathies

Low MCV - microcytic anemia

High MCV - macrocytic anemia, liver disease

Low WBC - sepsis, marrow hypoplasia

High WBC - acute stress, infection, malignancies

Low platelets - risk of bleeding

High platelets - risk of thrombosis

Notes

1.Macrocytic Anemia/Dimorphic Anemia can have low platelet count.

2.Microcytic Anemia/Leucocytosis can have Reactive thrombocytosis.

For microcytic indices a Mentzer index of less than 13 suggests that the patient may have thalassemia trait, and an index of more than 13 suggests that the patient may have iron deficiency.

Reference ranges are from Dacie and Lewis Practical Hematology 11th edition(2011)

*** End Of Report ***

DR. MD ARIF
MBBS, MD(PATHOLOGY)
LAB DIRECTOR
Reg. No. 34518

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MBBS, MD
CONSULTANT PATHOLOGIST
Reg. No. 66492

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Age/Gender	: 52 Yrs/Female	Visit No.	: 78512408060001
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Referred By	: NA	Received on	: 06-Aug-2024 06:32PM
Doctor Name	:	Reported on	: 06-Aug-2024 08:08PM
Sample Type	: Serum - 14817966,Whole Blood EDTA - 14817967, -		

BIOCHEMISTRY

Test Name	Results	Unit	Bio. Ref. Interval
CALCIUM-SERUM			
CALCIUM , Serum	**7.10**	mg/dL	8.4 - 10.6

Methodology: BAPTA

CLINICAL NOTES

A blood calcium test is ordered to screen for, diagnose, and monitor a range of conditions relating to the bones, heart, nerves, kidneys, and teeth. The test may also be ordered if a person has symptoms of a parathyroid disorder, malabsorption, or an overactive thyroid. To help diagnose the underlying problem, additional tests are often done to measure ionized calcium, urine calcium, phosphorus, magnesium, vitamin D, parathyroid hormone (PTH) and PTH-related peptide (PTHrP). PTH and vitamin D are responsible for maintaining calcium concentrations in the blood within a narrow range of values. Measuring urine calcium can help determine whether the kidneys are excreting the proper amount of calcium,

Serum calcium is decreased (hypocalcemia) in following conditions-
-Hypoparathyroidism,Pseudohypoparathyroidism
-Vitamin D deficiency (either from intake deficiency or decreased conversion/activation) or resistance (osteomalacia and rickets)
-Chronic renal diseases (eg, renal acidosis, Fanconi syndrome),Chronic liver disease and biliary obstructive diseases
-Magnesium deficiency (PTH glandular release is magnesium-dependent),Hyperphosphatemia,Hypoalbuminemia
-Overexpression of fibroblast growth factor 23 (oncogenic osteomalacia)
-Severe calcium dietary deficiency,Hungry bone syndrome,Severe pancreatitis (calcium saponification),Massive transfusion

Serum calcium is Increased (hypercalcemia) in following conditions-
-Hyperparathyroidism (primary, such MEN type 1, hyperplasia, adenoma, or carcinoma; or secondary, from chronic kidney injury and hyperphosphatemia)
-Malignancies (humoral hypercalcemia of malignancy) that secrete PTH–related protein, especially squamous cell carcinoma of lung and renal cell carcinoma
-Vitamin D excess,Vitamin A intoxication,Milk-alkali syndrome
-Multiple myeloma, owing to bone lesions,Paget disease of bone with prolonged immobilization,Sarcoidosis,Other granulomatous disorders
-Familial hypocalciuria hypercalcemia,Addison disease
-Thyrotoxicosis,Hypothyroidism, owing to prolongation of vitamin D action as its metabolism is slowed down
-Drug exposure: Some drugs that can increase serum calcium are as follows antacids (some), calcium salts, long-term thiazide therapy, lithium

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MBBS, MD
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Age/Gender	: 52 Yrs/Female	Visit No.	: 78512408060001
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Referred By	: NA	Received on	: 06-Aug-2024 06:32PM
Doctor Name	:	Reported on	: 06-Aug-2024 06:56PM
Sample Type	: Serum - 14817966,Whole Blood EDTA - 14817967, -		

BIOCHEMISTRY

Test Name	Results	Unit	Bio. Ref. Interval
LIVER FUNCTION TEST (LFT) - EXTENDED			
BILIRUBIN TOTAL,Serum *Methodology: Diazonium Ion Blanked*	0.36	mg/dL	0.10 - 1.20
DIRECT BILIRUBIN(CONJUGATED), Serum *Methodology: Diazo Method*	0.20	mg/dl	0.00-0.20
INDIRECT BILIRUBIN,Serum *Methodology: Calculated*	0.16	mg/dL	0.80
SGPT (ALT), SERUM *Methodology: UV without P5P*	18.50	U/L	0-35
SGOT (AST) ,SERUM *Methodology: UV With P5P*	21.70	IU/L	0.0-32.0
ALKALINE PHOSPHATASE ,Serum *Methodology: IFCC*	**382.0**	U/L	53-128
GAMMA GLUTAMYL TRANSFERASE (GGT),Serum *Methodology: IFCC*	**95.80**	U/L	12.0-58.0
TOTAL PROTEIN , Serum *Methodology: Biuret*	7.00	g/dL	6.00-8.30
Albumin,Serum *Methodology: BCG*	3.67	g/dL	3.2-5.20
GLOBULIN,SERUM *Methodology: Calculated*	3.33	g/dL	2.30-4.50
A/G Ratio ,Serum *Methodology: Calculated*	1.10		1.0 - 2.3
SGOT/SGPT RATIO	1.17		

COMMENT

These are group of tests that can be used to detect the presence of liver disease, distinguish among different types of liver disorders, gauge the extent of known liver damage, and monitor the response to treatment. Most liver diseases cause only mild symptoms initially, but these diseases must be detected early. Some tests are associated with functionality (e.g., albumin), some with cellular integrity (e.g., transaminase), and some with conditions linked to the biliary tract (gamma-glutamyl transferase and alkaline phosphatase). Conditions with elevated levels of ALT and AST include hepatitis A,B ,C ,paracetamol toxicity etc.Several biochemical tests are useful in the evaluation and management of patients with hepatic dysfunction. Some or all of these measurements are also carried out (usually about twice a year for routine cases) on those individuals taking certain medications, such as anticonvulsants, to ensure that the medications are not adversely impacting the person's liver.

Reference ranges are from Teitz fundamental of clinical chemistry 8th ed (2018)

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DR. MD ARIF
MBBS, MD(PATHOLOGY)
LAB DIRECTOR
Reg. No. 34518

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MBBS, MD
CONSULTANT PATHOLOGIST
Reg. No. 66492

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Referred By	: NA	Received on	: 06-Aug-2024 06:32PM
Doctor Name	:	Reported on	: 07-Aug-2024 09:36AM
Sample Type	: Serum - 14817966,Whole Blood EDTA - 14817967, -		

BIOCHEMISTRY

Test Name	Results	Unit	Bio. Ref. Interval
KIDNEY FUNCTION TEST (KFT)-BASIC			
UREA - SERUM *Methodology: Urease UV*	**102.1**	mg/dL	21.0 - 43.0
CREATININE-SERUM *Methodology: Jaffe Kinetic*	**7.13**	mg/dL	0.40-1.10
URIC ACID - SERUM *Methodology: URICASE-POD*	6.40	mg/dL	3.50 - 7.20
SODIUM (SERUM) *Methodology: ISE*	**132.7**	mmol/L	135 - 150
POTASSIUM-SERUM *Methodology: ISE*	4.20	mmol/L	3.5 - 5.5
CHLORIDE ,Serum *Methodology: ISE*	109.40	mmol/L	94 - 110
BLOOD UREA NITROGEN (BUN) *Methodology: Calculated*	**47.71**	mg/dL	8.00-23.0
BUN/CREATININE RATIO *Methodology: Calculated*	6.69	Ratio	10-20:1 Normal
UREA / CREATININE RATIO *Methodology: Calculated*	**14.32**	Ratio	40-100:1 Normal

INTERPRETATION

Kidney function tests are group of tests that can be used to evaluate how well the kidneys are functioning.Creatinine is a waste product produced by muscles from the breakdown of a compound called creatine. In blood, it is a marker of GFR ,in urine, it can remove the need for 24-hour collections for many analytes or be used as a quality assurance tool to assess the accuracy of a 24-hour collection . It is removed from the body by the kidneys, which filter almost all of it from the blood and release it into the urine. This test measures the amount of creatinine in the blood and/or urine.Creatine is part of the cycle that produces energy needed to contract muscles. Both creatine and creatinine are produced by the body at a relatively constant rate. Since almost all creatinine is filtered from the blood by the kidneys and released into the urine, blood levels are usually a good indicator of how well the kidneys are working.

REMARK-The amount of creatinine you produce depends on your body size and your muscle mass. For this reason, creatinine levels are usually slightly higher in men than in women and children.Certain drugs are nephrotoxic hence KFT is done before and after initiation of treatment with these drugs.

Higher creatinine than normal level may be due to: • Blockage in the urinary tract • Kidney problems, such as kidney damage or failure, infection, or reduced blood flow • Loss of body fluid (dehydration) • Muscle problems, such as breakdown of muscle fibers • Problems during pregnancy, such as seizures (eclampsia)), or high blood pressure caused by pregnancy (preeclampsia)

Lower than normal creatinine level may be due to: • Myasthenia Gravis • Muscular dystrophy.Low serum creatinine values are rare; they almost always reflect low muscle mass.

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MBBS, MD(PATHOLOGY)
LAB DIRECTOR
Reg. No. 34518

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MBBS, MD
CONSULTANT PATHOLOGIST
Reg. No. 66492