Name	: **Mr. RAVICHANDRAN.T**	**Register On**	: 28/03/2024 9:15 AM
PID No.	: MED122521525	**Collection On**	: 28/03/2024 9:34 AM
SID No.	: 624007830	**Report On**	: 28/03/2024 2:49 PM
Age / Sex	: 57 Year(s) / Male	**Printed On**	: 14/05/2024 6:33 PM
Ref. Dr	: **MediWheel**	**Type**	: OP

medall DIAGNOSTICS

Investigation	Observed Value	Unit	Biological Reference Interval
IMMUNOHAEMATOLOGY			
BLOOD GROUPING AND Rh TYPING (Blood /Agglutination)	'B' 'Positive'		
HAEMATOLOGY			
Complete Blood Count With - ESR			
Haemoglobin (Blood/Spectrophotometry)	**10.7**	g/dL	13.5 - 18.0
Packed Cell Volume(PCV)/Haematocrit (Blood/Derived from Impedance)	**36.2**	%	42 - 52
RBC Count (Blood/Impedance Variation)	**4.42**	mill/cu.mm	4.7 - 6.0
Mean Corpuscular Volume(MCV) (Blood/ Derived from Impedance)	82	fL	78 - 100
Mean Corpuscular Haemoglobin(MCH) (Blood/Derived from Impedance)	**24.2**	pg	27 - 32
Mean Corpuscular Haemoglobin concentration(MCHC) (Blood/Derived from Impedance)	**29.5**	g/dL	32 - 36
RDW-CV(Derived from Impedance)	14.2	%	11.5 - 16.0
RDW-SD(Derived from Impedance)	40.75	fL	39 - 46
Total Leukocyte Count (TC) (Blood/ Impedance Variation)	8700	cells/cu.mm	4000 - 11000
Neutrophils (Blood/Impedance Variation & Flow Cytometry)	60.7	%	40 - 75
Lymphocytes (Blood/Impedance Variation & Flow Cytometry)	29.5	%	20 - 45
Eosinophils (Blood/Impedance Variation & Flow Cytometry)	3.0	%	01 - 06
Monocytes (Blood/Impedance Variation & Flow Cytometry)	6.6	%	01 - 10
Basophils (Blood/Impedance Variation & Flow Cytometry)	0.2	%	00 - 02
INTERPRETATION: Tests done on Automated Five Part cell counter. All abnormal results are reviewed and confirmed microscopically.			
Absolute Neutrophil count (Blood/ Impedance Variation & Flow Cytometry)	5.28	10^3 / µl	1.5 - 6.6
Absolute Lymphocyte Count (Blood/ Impedance Variation & Flow Cytometry)	2.57	10^3 / µl	1.5 - 3.5
Absolute Eosinophil Count (AEC) (Blood/ Impedance Variation & Flow Cytometry)	0.26	10^3 / µl	0.04 - 0.44
Absolute Monocyte Count (Blood/ Impedance Variation & Flow Cytometry)	0.57	10^3 / µl	< 1.0

E.SUKANTHI RANI
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Investigation	Observed Value	Unit	Biological Reference Interval
Absolute Basophil count (Blood/Impedance Variation & Flow Cytometry)	0.02	10^3 / µl	< 0.2
Platelet Count (Blood/Impedance Variation)	324	10^3 / µl	150 - 450
MPV (Blood/Derived from Impedance)	8.1	fL	7.9 - 13.7
PCT(Automated Blood cell Counter)	0.26	%	0.18 - 0.28
ESR (Erythrocyte Sedimentation Rate) (Blood/Automated ESR analyser)	**48**	mm/hr	< 20

BIOCHEMISTRY

BUN / Creatinine Ratio	10.3		
Glucose Fasting (FBS) (Plasma - F/GOD-PAP)	**119.2**	mg/dL	Normal: < 100 Pre Diabetic: 100 - 125 Diabetic: >= 126

INTERPRETATION: Factors such as type, quantity and time of food intake, Physical activity, Psychological stress, and drugs can influence blood glucose level.

Glucose, Fasting (Urine) (Urine - F)	Negative		Negative
Glucose Postprandial (PPBS) (Plasma - PP/ GOD-PAP)	**256.0**	mg/dL	70 - 140

INTERPRETATION:
Factors such as type, quantity and time of food intake, Physical activity, Psychological stress, and drugs can influence blood glucose level. Fasting blood glucose level may be higher than Postprandial glucose, because of physiological surge in Postprandial Insulin secretion, Insulin resistance, Exercise or Stress, Dawn Phenomenon, Somogyi Phenomenon, Anti- diabetic medication during treatment for Diabetes.

Urine Glucose(PP-2 hours) (Urine - PP)	**Positive(++)**		Negative
Blood Urea Nitrogen (BUN) (Serum/Urease UV / derived)	8.8	mg/dL	7.0 - 21
Creatinine (Serum/Modified Jaffe)	**0.85**	mg/dL	0.9 - 1.3
Uric Acid (Serum/Enzymatic)	5.6	mg/dL	3.5 - 7.2
Liver Function Test			
Bilirubin(Total) (Serum)	1.20	mg/dL	0.1 - 1.2
Bilirubin(Direct) (Serum/Diazotized Sulfanilic Acid)	0.22	mg/dL	0.0 - 0.3
Bilirubin(Indirect) (Serum/Derived)	0.98	mg/dL	0.1 - 1.0
SGOT/AST (Aspartate Aminotransferase) (Serum/Modified IFCC)	15.5	U/L	5 - 40
SGPT/ALT (Alanine Aminotransferase) (Serum)	17.7	U/L	5 - 41
GGT(Gamma Glutamyl Transpeptidase) (Serum/IFCC / Kinetic)	21.3	U/L	< 55

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Investigation	Observed Value	Unit	Biological Reference Interval
Alkaline Phosphatase (SAP) (Serum/ Modified IFCC)	109.6	U/L	56 - 119
Total Protein (Serum/Biuret)	6.85	gm/dL	6.0 - 8.0
Albumin (Serum/Bromocresol green)	3.70	gm/dL	3.5 - 5.2
Globulin (Serum/Derived)	3.15	gm/dL	2.3 - 3.6
A : G RATIO (Serum/Derived)	1.17		1.1 - 2.2
Lipid Profile			
Cholesterol Total (Serum/CHOD-PAP with ATCS)	108.9	mg/dL	Optimal: < 200 Borderline: 200 - 239 High Risk: >= 240
Triglycerides (Serum/GPO-PAP with ATCS)	80.5	mg/dL	Optimal: < 150 Borderline: 150 - 199 High: 200 - 499 Very High: >= 500

INTERPRETATION: The reference ranges are based on fasting condition. Triglyceride levels change drastically in response to food, increasing as much as 5 to 10 times the fasting levels, just a few hours after eating. Fasting triglyceride levels show considerable diurnal variation too. There is evidence recommending triglycerides estimation in non-fasting condition for evaluating the risk of heart disease and screening for metabolic syndrome, as non-fasting sample is more representative of the `usual_ circulating level of triglycerides during most part of the day.

HDL Cholesterol (Serum/Immunoinhibition)	**44.0**	mg/dL	Optimal(Negative Risk Factor): >= 60 Borderline: 40 - 59 High Risk: < 40
LDL Cholesterol (Serum/Calculated)	48.8	mg/dL	Optimal: < 100 Above Optimal: 100 - 129 Borderline: 130 - 159 High: 160 - 189 Very High: >= 190
VLDL Cholesterol (Serum/Calculated)	16.1	mg/dL	< 30
Non HDL Cholesterol (Serum/Calculated)	64.9	mg/dL	Optimal: < 130 Above Optimal: 130 - 159 Borderline High: 160 - 189 High: 190 - 219 Very High: >= 220

INTERPRETATION: 1.Non-HDL Cholesterol is now proven to be a better cardiovascular risk marker than LDL Cholesterol.
2.It is the sum of all potentially atherogenic proteins including LDL, IDL, VLDL and chylomicrons and it is the "new bad cholesterol" and is a co-primary target for cholesterol lowering therapy.

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Investigation	Observed Value	Unit	Biological Reference Interval
Total Cholesterol/HDL Cholesterol Ratio (Serum/Calculated)	2.5		Optimal: < 3.3 Low Risk: 3.4 - 4.4 Average Risk: 4.5 - 7.1 Moderate Risk: 7.2 - 11.0 High Risk: > 11.0
Triglyceride/HDL Cholesterol Ratio (TG/HDL) (Serum/Calculated)	1.8		Optimal: < 2.5 Mild to moderate risk: 2.5 - 5.0 High Risk: > 5.0
LDL/HDL Cholesterol Ratio (Serum/ Calculated)	1.1		Optimal: 0.5 - 3.0 Borderline: 3.1 - 6.0 High Risk: > 6.0
Glycosylated Haemoglobin (HbA1c)			
HbA1C (Whole Blood/Ion exchange HPLC by D10)	**7.1**	%	Normal: 4.5 - 5.6 Prediabetes: 5.7 - 6.4 Diabetic: >= 6.5

INTERPRETATION: If Diabetes - Good control : 6.1 - 7.0 % , Fair control : 7.1 - 8.0 % , Poor control >= 8.1 %

Estimated Average Glucose (Whole Blood)	157.07	mg/dL

INTERPRETATION: Comments
HbA1c provides an index of Average Blood Glucose levels over the past 8 - 12 weeks and is a much better indicator of long term glycemic control as compared to blood and urinary glucose determinations.
Conditions that prolong RBC life span like Iron deficiency anemia, Vitamin B12 & Folate deficiency, hypertriglyceridemia,hyperbilirubinemia,Drugs, Alcohol, Lead Poisoning, Asplenia can give falsely elevated HbA1C values.
Conditions that shorten RBC survival like acute or chronic blood loss, hemolytic anemia, Hemoglobinopathies, Splenomegaly,Vitamin E ingestion, Pregnancy, End stage Renal disease can cause falsely low HbA1c.

IMMUNOASSAY

Prostate specific antigen - Total(PSA) (Serum/Manometric method)	0.56	ng/mL	Normal: 0.0 - 4.0 Inflammatory & Non Malignant conditions of Prostate & genitourinary system: 4.01 - 10.0 Suspicious of Malignant disease of Prostate: > 10.0

INTERPRETATION: Analytical sensitivity: 0.008 - 100 ng/mL
PSA is a tumor marker for screening of prostate cancer. Increased levels of PSA are associated with prostate cancer and benign conditions like bacterial infection, inflammation of prostate gland and benign hypertrophy of prostate/ benign prostatic hyperplasia (BPH).
Transient elevation of PSA levels are seen following digital rectal examination, rigorous physical activity like bicycle riding, ejaculation within 24 hours.
PSA levels tend to increase in all men as they age.
Clinical Utility of PSA:
ðIn the early detection of Prostate cancer.
ðAs an aid in discriminating between Prostate cancer and Benign Prostatic disease.
ðTo detect cancer recurrence or disease progression.

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Investigation	Observed Value	Unit	Biological Reference Interval
THYROID PROFILE / TFT			
T3 (Triiodothyronine) - Total (Serum/ Chemiluminescent Immunometric Assay (CLIA))	0.98	ng/mL	0.4 - 1.81
INTERPRETATION: **Comment :** Total T3 variation can be seen in other condition like pregnancy, drugs, nephrosis etc. In such cases, Free T3 is recommended as it is Metabolically active.			
T4 (Tyroxine) - Total (Serum/ Chemiluminescent Immunometric Assay (CLIA))	9.73	µg/dL	4.2 - 12.0
INTERPRETATION: **Comment :** Total T4 variation can be seen in other condition like pregnancy, drugs, nephrosis etc. In such cases, Free T4 is recommended as it is Metabolically active.			
TSH (Thyroid Stimulating Hormone) (Serum /Chemiluminescent Immunometric Assay (CLIA))	2.33	µIU/mL	0.35 - 5.50
INTERPRETATION: Reference range for cord blood - upto 20 1 st trimester: 0.1-2.5 2 nd trimester 0.2-3.0 3 rd trimester : 0.3-3.0 (Indian Thyroid Society Guidelines) **Comment :** 1.TSH reference range during pregnancy depends on Iodine intake, TPO status, Serum HCG concentration, race, Ethnicity and BMI. 2.TSH Levels are subject to circadian variation, reaching peak levels between 2-4am and at a minimum between 6-10PM.The variation can be of the order of 50%,hence time of the day has influence on the measured serum TSH concentrations. 3.Values&amplt;0.03 µIU/mL need to be clinically correlated due to presence of rare TSH variant in some individuals.			

CLINICAL PATHOLOGY

Urine Analysis - Routine			
Colour (Urine)	Pale yellow		Yellow to Amber
Appearance (Urine)	Clear		Clear
Protein (Urine)	Negative		Negative
Glucose (Urine)	Negative		Negative
Pus Cells (Urine)	**2-3**	/hpf	NIL
Epithelial Cells (Urine)	**1-2**	/hpf	NIL

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Investigation	Observed Value	Unit	Biological Reference Interval
RBCs (Urine)	Nil	/hpf	NIL

-- End of Report --

E.SUKANTHI RANI
Sr.Lab Tech

Dr.R.Lavanya MD
Consultant - Pathologist
Reg No: 90632

Name	Mr.RAVICHANDRAN.T	ID	MED122521525
Age & Gender	57/MALE	Visit Date	28/03/2024
Ref Doctor Name	MediWheel		

Thanks for your reference

SONOGRAM REPORT

WHOLE ABDOMEN

Liver: The liver is normal in size and shows uniform echotexture.
There is no intra or extra hepatic biliary ductal dilatation.
Small lobulated cyst measuring 1.1 x 0.7cm noted in segment 7/8.

Gallbladder: The gall bladder is normal sized and smooth walled and contains no calculus.

Pancreas The pancreas shows a normal configuration and echotexture.

The pancreatic duct is normal.

Spleen The spleen is normal.

Kidneys The right kidney measures 10.6 x 4.7 cm. Normal architecture.

The collecting system is not dilated.
The left kidney measures 10.8 x 5.3 cm. Normal architecture.

The collecting system is not dilated.

Urinary bladder: The urinary bladder is smooth walled and uniformly transonic.

There is no intravesical mass or calculus.

Prostate: The prostate measures 3.8 x 3.2 x 2.4 cm and is normal sized.

Name	Mr.RAVICHANDRAN.T	ID	MED122521525
Age & Gender	57/MALE	Visit Date	28/03/2024
Ref Doctor Name	MediWheel		

Corresponds to a weight of about 15.91 gms.
The echotexture is homogeneous.
The seminal vesicles are normal.

There is no free or loculated peritoneal fluid.
No para aortic lymphadenopathy is seen.
Umbilcal hernia with defect measuring 2.4cm and omentum as content.

IMPRESSION

- Small cyst liver.
- Umbilical hernia

DR. A. SUJA RAJAN., DMRD, DNB
Consultant Radiologist
Reg. No: 106909.

Name	Mr. RAVICHANDRAN.T	ID	MED122521525
Age & Gender	57Y/M	Visit Date	Mar 28 2024 9:14AM
Ref Doctor	MediWheel		

Thanks for your reference

DIGITAL X- RAY CHEST PA VIEW

Subtle lucency in bilateral lower lung zones -?sub pleural sparing / emphysema.

Trachea appears normal.

Cardiothoracic ratio is within normal limits.

Costo and cardiophrenic angles appear normal.

Visualised bony structures appear normal.

Extra thoracic soft tissues shadow grossly appears normal.

- Suggested clinical correlation.

Dr.A.Suja Rajan DMRD., DNB.,
Consultant Radiologist