Name	: **Mr. RANJITH KUMAR A**		
PID No.	: MED121710450	**Register On**	: 04/03/2023 8:23 AM
SID No.	: 123003457	**Collection On**	: 04/03/2023 8:36 AM
Age / Sex	: 36 Year(s) / Male	**Report On**	: 04/03/2023 6:18 PM
Type	: OP	**Printed On**	: 17/03/2023 6:24 PM
Ref. Dr	: **MediWheel**		

medall DIAGNOSTICS

Investigation	Observed Value	Unit	Biological Reference Interval
BLOOD GROUPING AND Rh TYPING (EDTA Blood/*Agglutination)*	'A' 'Positive'		

INTERPRETATION: Reconfirm the Blood group and Typing before blood transfusion

Complete Blood Count With - ESR

Haemoglobin (EDTA Blood/*Spectrophotometry)*	13.9	g/dL	13.5 - 18.0
Packed Cell Volume(PCV)/Haematocrit (EDTA Blood/*Derived from Impedance)*	**41.6**	%	42 - 52
RBC Count (EDTA Blood/*Impedance Variation)*	5.14	mill/cu.mm	4.7 - 6.0
Mean Corpuscular Volume(MCV) (EDTA Blood/*Derived from Impedance)*	80.9	fL	78 - 100
Mean Corpuscular Haemoglobin(MCH) (EDTA Blood/*Derived from Impedance)*	27.0	pg	27 - 32
Mean Corpuscular Haemoglobin concentration(MCHC) (EDTA Blood/*Derived from Impedance)*	33.4	g/dL	32 - 36
RDW-CV (EDTA Blood/*Derived from Impedance)*	14.6	%	11.5 - 16.0
RDW-SD (EDTA Blood/*Derived from Impedance)*	42.0	fL	39 - 46
Total Leukocyte Count (TC) (EDTA Blood/*Impedance Variation)*	9200	cells/cu.mm	4000 - 11000
Neutrophils (EDTA Blood/*Impedance Variation & Flow Cytometry)*	69.0	%	40 - 75
Lymphocytes (EDTA Blood/*Impedance Variation & Flow Cytometry)*	23.6	%	20 - 45

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The results pertain to sample tested.

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Investigation	Observed Value	Unit	Biological Reference Interval
Eosinophils (EDTA Blood/*Impedance Variation & Flow Cytometry)*	1.6	%	01 - 06
Monocytes (EDTA Blood/*Impedance Variation & Flow Cytometry)*	5.4	%	01 - 10
Basophils (EDTA Blood/*Impedance Variation & Flow Cytometry)*	0.4	%	00 - 02
INTERPRETATION: Tests done on Automated Five Part cell counter. All abnormal results are reviewed and confirmed microscopically.			
Absolute Neutrophil count (EDTA Blood/*Impedance Variation & Flow Cytometry)*	6.3	10^3 / µl	1.5 - 6.6
Absolute Lymphocyte Count (EDTA Blood/*Impedance Variation & Flow Cytometry)*	2.2	10^3 / µl	1.5 - 3.5
Absolute Eosinophil Count (AEC) (EDTA Blood/*Impedance Variation & Flow Cytometry)*	0.2	10^3 / µl	0.04 - 0.44
Absolute Monocyte Count (EDTA Blood/*Impedance Variation & Flow Cytometry)*	0.5	10^3 / µl	< 1.0
Absolute Basophil count (EDTA Blood/*Impedance Variation & Flow Cytometry)*	0.0	10^3 / µl	< 0.2
Platelet Count (EDTA Blood/*Impedance Variation)*	223	10^3 / µl	150 - 450
MPV (EDTA Blood/*Derived from Impedance)*	8.9	fL	7.9 - 13.7
PCT (EDTA Blood/*Automated Blood cell Counter)*	0.199	%	0.18 - 0.28
ESR (Erythrocyte Sedimentation Rate) (Blood/*Automated - Westergren method)*	**29**	mm/hr	< 15

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Investigation	Observed Value	Unit	Biological Reference Interval
BUN / Creatinine Ratio	17.4		6.0 - 22.0
Glucose Fasting (FBS) (Plasma - F/*GOD-PAP*)	**152.5**	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/*GOD - POD*)	**Positive(+)**		Negative
Glucose Postprandial (PPBS) (Plasma - PP/*GOD-PAP*)	**261.5**	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*)	16.2	mg/dL	7.0 - 21
Creatinine (Serum/*Modified Jaffe*)	0.93	mg/dL	0.9 - 1.3

INTERPRETATION: Elevated Creatinine values are encountered in increased muscle mass, severe dehydration, Pre-eclampsia, increased ingestion of cooked meat, consuming Protein/ Creatine supplements, Diabetic Ketoacidosis, prolonged fasting, renal dysfunction and drugs such as cefoxitin, cefazolin, ACE inhibitors, angiotensin II receptor antagonists,N-acetylcysteine, chemotherapeutic agent such as flucytosine etc.

Uric Acid (Serum/*Enzymatic*)	4.2	mg/dL	3.5 - 7.2

Liver Function Test

Bilirubin(Total) (Serum/*DCA with ATCS*)	0.80	mg/dL	0.1 - 1.2

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Investigation	Observed Value	Unit	Biological Reference Interval
Bilirubin(Direct) (Serum/*Diazotized Sulfanilic Acid)*	0.22	mg/dL	0.0 - 0.3
Bilirubin(Indirect) (Serum/*Derived)*	0.58	mg/dL	0.1 - 1.0
SGOT/AST (Aspartate Aminotransferase) (Serum/*Modified IFCC)*	13.7	U/L	5 - 40
SGPT/ALT (Alanine Aminotransferase) (Serum/*Modified IFCC)*	25.5	U/L	5 - 41
GGT(Gamma Glutamyl Transpeptidase) (Serum/*IFCC / Kinetic)*	28.4	U/L	< 55
Alkaline Phosphatase (SAP) (Serum/*Modified IFCC)*	77.7	U/L	53 - 128
Total Protein (Serum/*Biuret)*	7.05	gm/dl	6.0 - 8.0
Albumin (Serum/*Bromocresol green)*	4.30	gm/dl	3.5 - 5.2
Globulin (Serum/*Derived)*	2.75	gm/dL	2.3 - 3.6
A : G RATIO (Serum/*Derived)*	1.56		1.1 - 2.2
Lipid Profile			
Cholesterol Total (Serum/*CHOD-PAP with ATCS)*	173.6	mg/dL	Optimal: < 200 Borderline: 200 - 239 High Risk: >= 240
Triglycerides (Serum/*GPO-PAP with ATCS)*	72.8	mg/dL	Optimal: < 150 Borderline: 150 - 199 High: 200 - 499 Very High: >= 500

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Investigation	Observed Value	Unit	Biological Reference Interval
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)*	**38.0**	mg/dL	Optimal(Negative Risk Factor): >= 60 Borderline: 40 - 59 High Risk: < 40
LDL Cholesterol (Serum/*Calculated)*	121	mg/dL	Optimal: < 100 Above Optimal: 100 - 129 Borderline: 130 - 159 High: 160 - 189 Very High: >= 190
VLDL Cholesterol (Serum/*Calculated)*	14.6	mg/dL	< 30
Non HDL Cholesterol (Serum/*Calculated)*	135.6	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.			
Total Cholesterol/HDL Cholesterol Ratio (Serum/*Calculated)*	4.6		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

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Investigation	Observed Value	Unit	Biological Reference Interval
Triglyceride/HDL Cholesterol Ratio (TG/HDL) (Serum/*Calculated)*	1.9		Optimal: < 2.5 Mild to moderate risk: 2.5 - 5.0 High Risk: > 5.0
LDL/HDL Cholesterol Ratio (Serum/*Calculated)*	3.2		Optimal: 0.5 - 3.0 Borderline: 3.1 - 6.0 High Risk: > 6.0

Glycosylated Haemoglobin (HbA1c)

HbA1C (Whole Blood/*HPLC)*	**7.7**	%	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*)*	174.29	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.

THYROID PROFILE / TFT

T3 (Triiodothyronine) - Total (Serum/*Chemiluminescent Immunometric Assay (CLIA))*	1.13	ng/ml	0.7 - 2.04

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.

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Investigation	Observed Value	Unit	Biological Reference Interval
T4 (Tyroxine) - Total (Serum/*Chemiluminescent Immunometric Assay (CLIA)*)	7.64	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)*)	1.76	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.

Urine Analysis - Routine

COLOUR (Urine)	Yellow		Yellow to Amber
APPEARANCE (Urine)	Clear		Clear
Protein (Urine/*Protein error of indicator)*	Negative		Negative
Glucose (Urine/*GOD - POD)*	Negative		Negative
Pus Cells (Urine/*Automated ¯Flow cytometry)*	**Occasional**	/hpf	NIL

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Investigation	Observed Value	Unit	Biological Reference Interval
Epithelial Cells (Urine/*Automated ¯Flow cytometry)*	**Occasional**	/hpf	NIL
RBCs (Urine/*Automated ¯Flow cytometry)*	NIL	/hpf	NIL
Casts (Urine/*Automated ¯Flow cytometry)*	NIL	/hpf	NIL
Crystals (Urine/*Automated ¯Flow cytometry)*	NIL	/hpf	NIL
Others (Urine*)*	NIL		

INTERPRETATION: Note: Done with Automated Urine Analyser & Automated urine sedimentation analyser. All abnormal reports are reviewed and confirmed microscopically.

Stool Analysis - ROUTINE

Colour (Stool*)*	Brown	Brown
Blood (Stool*)*	Absent	Absent
Mucus (Stool*)*	Absent	Absent
Reaction (Stool*)*	Acidic	Acidic
Consistency (Stool*)*	Semi Solid	Semi Solid
Ova (Stool*)*	NIL	NIL
Others (Stool*)*	NIL	NIL
Cysts (Stool*)*	NIL	NIL

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Investigation	Observed Value	Unit	Biological Reference Interval
Trophozoites (Stool)	NIL		NIL
RBCs (Stool)	NIL	/hpf	Nil
Pus Cells (Stool)	**1 - 2**	/hpf	NIL
Macrophages (Stool)	NIL		NIL
Epithelial Cells (Stool)	NIL	/hpf	NIL

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PRECISION DIAGNOSTICS
A MEDALL COMPANY

Name	Mr.RANJITH KUMAR A	ID	MED121710450
Age & Gender	36/MALE	Visit Date	04/03/2023
Ref Doctor Name	MediWheel		

ULTRASOUND SCAN

WHOLE ABDOMEN

Liver is enlarged in size (15.9 cm) and shows homogenously increased parenchymal echoes with no focal abnormality.
There is no intra or extra hepatic biliary ductal dilatation. Portal vein and IVC are normal.

Gall bladder is normal sized and smooth walled. No evidence of calculi.
Wall thickness is normal.

Pancreas shows a normal configuration and echotexture. Pancreatic duct is normal.

Spleen is normal in size and echotexture.

Bilateral kidneys are normal in size, shape and position. Cortical echoes are normal bilaterally. There is no calculus or calyceal dilatation.
Right kidney measures 11.0 x 5.0 cm.
Left kidney measures 11.6 x 4.2 cm.
Ureters are not dilated.
No abnormality is seen in the region of the **adrenal glands**.
No para aortic lymphadenopathy is seen.

Urinary bladder is smooth walled and uniformly transonic. No intravesical mass or calculus.

Prostate is normal in size, measures 3.6 x 3.4 x 3.0 cm (Vol - 20 cc).
Echotexture is homogenous.

Seminal vesicles is normal.

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Age & Gender	36/MALE	Visit Date	04/03/2023
Ref Doctor Name	MediWheel		

Iliac fossae are normal.

There is no free or loculated peritoneal fluid.

IMPRESSION:

- **Enlarged fatty liver.**

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