

Name	MRS.HEMALATHA R	ID	MED112125091
Age & Gender	39Y/FEMALE	Visit Date	22/03/2024
Ref Doctor Name	MediWheel		



### ABDOMINO-PELVIC ULTRASONOGRAPHY

**LIVER is normal in size and shows slightly increased echotexture.**

No evidence of focal lesion or intrahepatic biliary ductal dilatation.

Hepatic and portal vein radicals are normal.

**GALL BLADDER** is partially distended.

**PANCREAS** has normal shape, size and uniform echopattern.

No evidence of ductal dilatation or calcification.

**SPLEEN** show normal shape, size and echopattern.

**KIDNEYS** move well with respiration and have normal shape, size and echopattern.

Cortico- medullary differentiations are well madeout.

No evidence of calculus or hydronephrosis.

	Bipolar length (cms)	Parenchymal thickness (cms)
Right Kidney	9.3	1.7
Left Kidney	9.5	1.7

**URINARY BLADDER** show normal shape and wall thickness.

It has clear contents.

**UTERUS** is anteverted and has normal shape and size. It has uniform myometrial echopattern.

Endometrial echo is of normal thickness 4.8 mms.

Uterus measures as follows: LS: 7.6cms      AP: 4.4cms      TS: 4.6cms.

**OVARIES** are normal size, shape and echotexture.

Right ovary measures: 2.9 x 2.3cms      Left ovary measures: 2.2 x 1.9cms

POD & adnexa are free.

No evidence of ascites.

#### IMPRESSION:

➤ **GRADE I FATTY CHANGES IN LIVER.**

#### **CONSULTANT RADIOLOGISTS**

**DR. ANITHA ADARSH**  
MB/MS

**DR. MOHAN B**

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Type : OP  
Ref. Dr : MediWheel

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<u>Investigation</u>	<u>Observed Value</u>	<u>Unit</u>	<u>Biological Reference Interval</u>
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**IMMUNOHAEMATOLOGY**

BLOOD GROUPING AND Rh TYPING  
(EDTA Blood/Agglutination)

'O' 'Positive'

**Remark:** Test to be confirmed by gel method

A handwritten signature in black ink, appearing to read "S. Mohan Kumar".

Mr. S. Mohan Kumar  
Sr. Lab Technician

VERIFIED BY

A handwritten signature in black ink, appearing to read "Dr. Kiran H's MD".

DR KIRAN H'S MD  
Consultant Pathologist  
KMC No: 86542

APPROVED BY

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## HAEMATOLOGY

### Complete Blood Count With - ESR

Haemoglobin (EDTA Blood/Spectrophotometry)	13.8	g/dL	12.5 - 16.0
<b>INTERPRETATION:</b> Haemoglobin values vary in Men, Women & Children. Low haemoglobin values may be due to nutritional deficiency, blood loss, renal failure etc. Higher values are often due to dehydration, smoking, high altitudes, hypoxia etc.			
PCV (Packed Cell Volume) / Haematocrit (EDTA Blood/Derived)	41.1	%	37 - 47
RBC Count (EDTA Blood/Automated Blood cell Counter)	<b>5.96</b>	mill/cu.mm	4.2 - 5.4
MCV (Mean Corpuscular Volume) (EDTA Blood/Derived from Impedance)	<b>69.0</b>	fL	78 - 100
MCH (Mean Corpuscular Haemoglobin) (EDTA Blood/Derived)	<b>23.2</b>	pg	27 - 32
MCHC (Mean Corpuscular Haemoglobin concentration) (EDTA Blood/Derived)	33.7	g/dL	32 - 36
RDW-CV (Derived)	14.1	%	11.5 - 16.0
RDW-SD (Derived)	34.05	fL	39 - 46
Total WBC Count (TC) (EDTA Blood/Derived from Impedance)	8980	cells/cu.mm	4000 - 11000
Neutrophils (Blood/Impedance Variation & Flow Cytometry)	58	%	40 - 75
Lymphocytes (Blood/Impedance Variation & Flow Cytometry)	36	%	20 - 45

  
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Eosinophils (Blood/Impedance Variation & Flow Cytometry)	02	%	01 - 06
Monocytes (Blood/Impedance Variation & Flow Cytometry)	04	%	01 - 10
Basophils (Blood/Impedance Variation & Flow Cytometry)	00	%	00 - 02
Absolute Neutrophil count (EDTA Blood/Impedance Variation & Flow Cytometry)	5.21	10 <sup>3</sup> / µl	1.5 - 6.6
Absolute Lymphocyte Count (EDTA Blood/Impedance Variation & Flow Cytometry)	3.23	10 <sup>3</sup> / µl	1.5 - 3.5
Absolute Eosinophil Count (AEC) (EDTA Blood/Impedance Variation & Flow Cytometry)	0.18	10 <sup>3</sup> / µl	0.04 - 0.44
Absolute Monocyte Count (EDTA Blood/Impedance Variation & Flow Cytometry)	0.36	10 <sup>3</sup> / µl	< 1.0
Absolute Basophil count (EDTA Blood/Impedance Variation & Flow Cytometry)	0.00	10 <sup>3</sup> / µl	< 0.2
Platelet Count (EDTA Blood/Derived from Impedance)	338	10 <sup>3</sup> / µl	150 - 450
MPV (Blood/Derived)	10.4	fL	8.0 - 13.3
PCT	<b>0.35</b>	%	0.18 - 0.28
ESR (Erythrocyte Sedimentation Rate) (Citratd Blood/Automated ESR analyser)	06	mm/hr	< 20

  
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<b><u>Lipid Profile</u></b>			
Cholesterol Total (Serum/Oxidase / Peroxidase method)	<b>240</b>	mg/dL	Optimal: < 200 Borderline: 200 - 239 High Risk: >= 240
Triglycerides (Serum/Glycerol phosphate oxidase / peroxidase)	<b>154</b>	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)	<b>31</b>	mg/dL	Optimal(Negative Risk Factor): >= 60 Borderline: 50 - 59 High Risk: < 50
LDL Cholesterol (Serum/Calculated)	178.2	mg/dL	Optimal: < 100 Above Optimal: 100 - 129 Borderline: 130 - 159 High: 160 - 189 Very High: >= 190
VLDL Cholesterol (Serum/Calculated)	<b>30.8</b>	mg/dL	< 30
Non HDL Cholesterol (Serum/Calculated)	209.0	mg/dL	Optimal: < 130 Above Optimal: 130 - 159 Borderline High: 160 - 189 High: 190 - 219 Very High: >= 220

  
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**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)	7.7		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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Triglyceride/HDL Cholesterol Ratio (TG/HDL) (Serum/Calculated)	5		Optimal: < 2.5 Mild to moderate risk: 2.5 - 5.0 High Risk: > 5.0
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LDL/HDL Cholesterol Ratio (Serum/Calculated)	5.7		Optimal: 0.5 - 3.0 Borderline: 3.1 - 6.0 High Risk: > 6.0
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<b><u>Glycosylated Haemoglobin (HbA1c)</u></b>			
HbA1C (Whole Blood/HPLC)	6.9	%	Normal: 4.5 - 5.6 Prediabetes: 5.7 - 6.4 Diabetic: $\geq$ 6.5

**INTERPRETATION:** If Diabetes - Good control : 6.1 - 7.0 % , Fair control : 7.1 - 8.0 % , Poor control  $\geq$  8.1 %

**Remark:** Kindly correlate clinically.

Estimated Average Glucose (Whole Blood)	151.33	mg/dl
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**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 glycaemic 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.

  
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**BIOCHEMISTRY**

BUN / Creatinine Ratio                      12.9  
Glucose Fasting (FBS)                      90                      mg/dL                      Normal: < 100  
(Plasma - F/GOD- POD)                      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.

Urine sugar, Fasting                      Nil                      Nil  
(Urine - F)  
Glucose Postprandial (PPBS)                      115                      mg/dL                      70 - 140  
(Plasma - PP/GOD - POD)

**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 Sugar (PP-2 hours)                      Nil                      Negative  
(Urine - PP)  
Blood Urea Nitrogen (BUN)                      15.5                      mg/dL                      7.0 - 21  
(Serum/Urease UV / derived)  
Creatinine                      1.2                      mg/dL                      0.6 - 1.1  
(Serum/Jaffe Kinetic)

**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-acetylcyteine , chemotherapeutic agent such as flucytosine etc.

Uric Acid                      4.6                      mg/dL                      2.6 - 6.0  
(Serum/Uricase/Peroxidase)

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**IMMUNOASSAY**

**THYROID PROFILE / TFT**

T3 (Triiodothyronine) - Total (Serum/ECLIA)	1.12	ng/ml	0.7 - 2.04
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**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/ECLIA)	4.08	µg/dl	4.2 - 12.0
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**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/ECLIA)	3.03	µIU/mL	0.35 - 5.50
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**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.

  
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Urobilinogen (Urine/Dip Stick ó"Reagent strip method)	Normal		Within normal limits
<b><u>Urine Microscopy Pictures</u></b>			
RBCs (Urine/Microscopy)	Nil	/hpf	NIL
Pus Cells (Urine/Microscopy)	2-3	/hpf	< 5
Epithelial Cells (Urine/Microscopy)	1-2	/hpf	No ranges
Others (Urine)	Nil		Nil

  
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<b><u>Stool Analysis - ROUTINE</u></b>			
Colour (Stool)	Brown		Brown
Blood (Stool)	Not present		Not present
Mucus (Stool)	Not present		Not present
Reaction (Stool)	Alkaline		Alkaline
Consistency (Stool)	Semi solid		Semi solid
Ova (Stool)	Nil		Nil
Others (Stool)	Nil		Nil
Cysts (Stool)	Nil		Nil
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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-- End of Report --

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## 2 D ECHOCARDIOGRAPHIC STUDY

### M mode measurement:

AORTA	:	2.9cms
LEFT ATRIUM	:	2.9cms
LEFT VENTRICLE (DIASTOLE)	:	4.5cms
(SYSTOLE)	:	2.6cms
VENTRICULAR SEPTUM (DIASTOLE)	:	0.8cms
(SYSTOLE)	:	1.0cms
POSTERIOR WALL (DIASTOLE)	:	0.8cms
(SYSTOLE)	:	1.0cms
EDV	:	61ml
ESV	:	24ml
FRACTIONAL SHORTENING	:	33%
EJECTION FRACTION	:	61%
RVID	:	1.0cms

### DOPPLER MEASUREMENTS:

MITRAL VALVE	:	E' - 0.77m/s	A' - 0.27 m/s	NO MR
AORTIC VALVE	:	0.98 m/s		NO AR
TRICUSPID VALVE	:	E' - 0.67m/s	A' - 0.30 m/s	NO TR
PULMONARY VALVE	:	0.73m/s		NO PR

### 2D ECHOCARDIOGRAPHY FINDINGS:

Left ventricle : Normal size, Normal systolic function.

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No regional wall motion abnormalities.

Left Atrium : Normal.

Right Ventricle : Normal.

Right Atrium : Normal.

Mitral valve : Normal, No mitral valve prolapse.

Aortic valve : Normal, Trileaflet.

Tricuspid valve : Normal.

Pulmonary valve : Normal.

IAS : Intact.

IVS : Intact.

Pericardium : No pericardial effusion.

**IMPRESSION:**

- **NORMAL SIZED CARDIAC CHAMBERS.**
- **NORMAL LV SYSTOLIC FUNCTION. EF: 61 %.**
- **NO REGIONAL WALL MOTION ABNORMALITIES.**
- **NORMAL VALVES.**
- **NO CLOTS/ PERICARDIAL EFFUSION VEGETATION.**

**DR. NIKHIL B  
INTERVENTIONAL CARDIOLOGIST**

NB/mm



Name	Mrs. HEMALATHA R	ID	MED112125091
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**X - RAY CHEST PA VIEW**

Bilateral lung fields appear normal.

Cardiac size is within normal limits.

Bilateral hilar regions appear normal.

Bilateral domes of diaphragm and costophrenic angles are normal.

Visualised bones and soft tissues appear normal.

***Impression: No significant abnormality detected.***



**DR. MOHAN. B**  
**(DMRD, DNB, EDIR, FELLOW IN CARDIAC**  
**MRI)**  
**CONSULTANT RADIOLOGIST**