

**CERTIFICATE OF MEDICAL FITNESS**

NAME: C. Bala mangan

AGE/ GENDER: 47 y / m

HEIGHT: 173 cm

WEIGHT: 82.7 kg

IDENTIFICATION MARK: -

BLOOD PRESSURE: 150/100 mm Hg

PULSE: 66/min

CVS: Normal

RS:P Normal

ANY OTHER DISEASE DIAGNOSED IN THE PAST: Nil

ALLERGIES, IF ANY: Nil

LIST OF PRESCRIBED MEDICINES: Nil

ANY OTHER REMARKS: NO

I Certify that I have carefully examined Mrs. C. Bala mangan son/daughter of Ms Chandrashekar who has signed in my presence. He/ she has no physical disease and is fit for employment.

Signature of candidate

Signature of Medical Officer

Place: Spectrum Diagnostics & Health Care

Date: 20/2/24

*Disclaimer: The patient has not been checked for COVID. This certificate does not relate to the covid status of the patient examined*



**EYE EXAMINATION**

NAME: *M. C. Bala Mahajan* AGE: *47Y*

GENDER: F/M

	RIGHT EYE	LEFT EYE
Vision	<i>6/9</i>	<i>6/12</i>
Vision With glass	<i>6/6</i>	<i>6/6</i>
Color Vision	Normal	Normal
Anterior segment examination	Normal	Normal
Fundus Examination	Normal	Normal
Any other abnormality	Nil	Nil
Diagnosis/ impression	Normal	Normal

*Dr. Ashok S*  
**Dr. ASHOK SARODHE**  
B.Sc., M.B.B.S., D.O.M.S.  
Eye Consultant & Surgeon  
KMC 31827  
Consultant (Ophthalmologist)



NAME	AGE	GENDER
Mr. C. Balasubramanian	47 yrs	Male.

**DENTAL EXAMINATION REPORT:**

8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8

C: CAVITY → Grossly destructed 78; To be extracted  
 → disc on 8; RCT to be considered.  
 M: MISSING → old crown on 7 has come off; Needs to be  
 refabricated.  
 O: OTHERS

ADVISED:

CLEANING / SCALING / ROOTS PLANNING / FLOSSING & POLISHING / OTHERS

REMARKS:

SIGNATURE OF THE DENTAL SURGEON

SEAL

DATE

**Dr. SACHDEV NAGARKAR**  
B.D.S., F.A.G.E., F.P.F.A. (USA)  
Reg. No : 2247/A



C BALA MURGAN  
Male 47Y ears

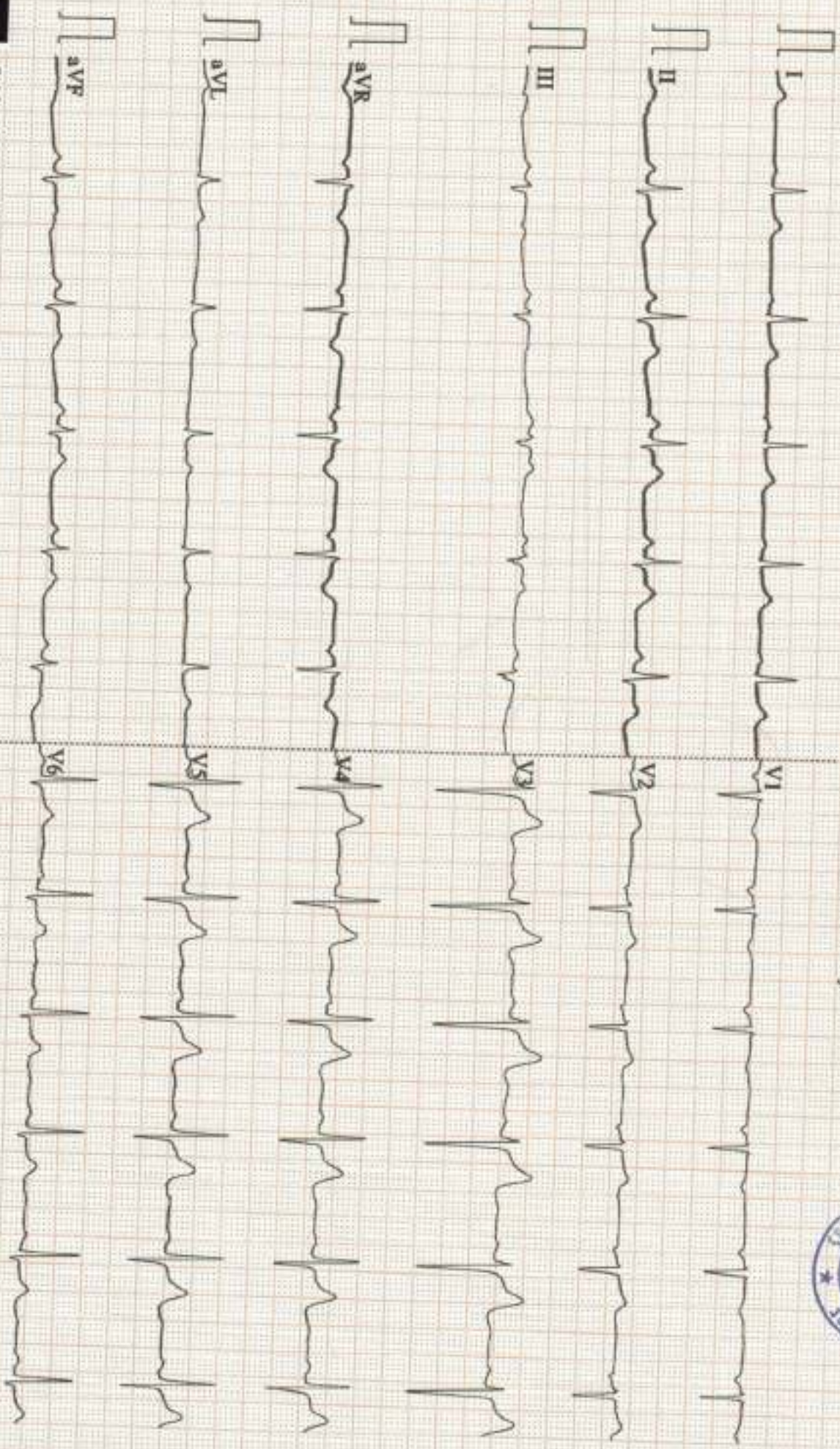
20-02-2024 09:41:54

HR : 68 bpm  
P : 103 ms  
PR : 160 ms  
QRS : 96 ms  
QT/QTc : 391/416 ms  
P/QRS/T : 68/13/4 °  
RV5/SV1 : 0.96/0.759 mV

Diagnosis Information:

Sinus Rhythm  
Largely PtfV1

Report Confirmed by:



0.15-35Hz AC50 25mm/s 10mm/mV 2\*5.0s 68 V2.2 SEMIP V1.81 SPECTRUM DIAGNOSTICS & HEALTH CARE



# SPECTRUM DIAGNOSTICS

Bangalore

Patient ID : 0142

Name : C BALA MURUGAN

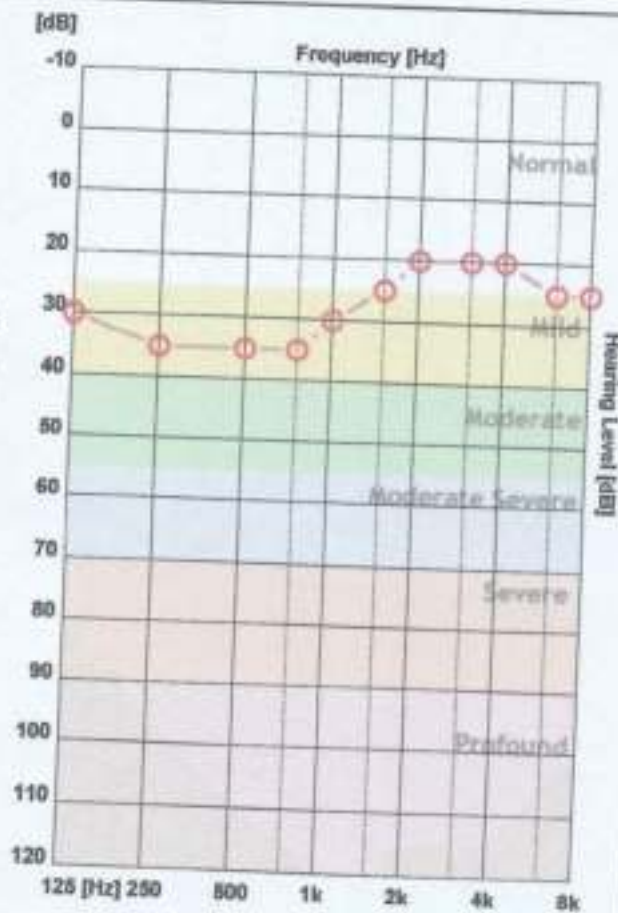
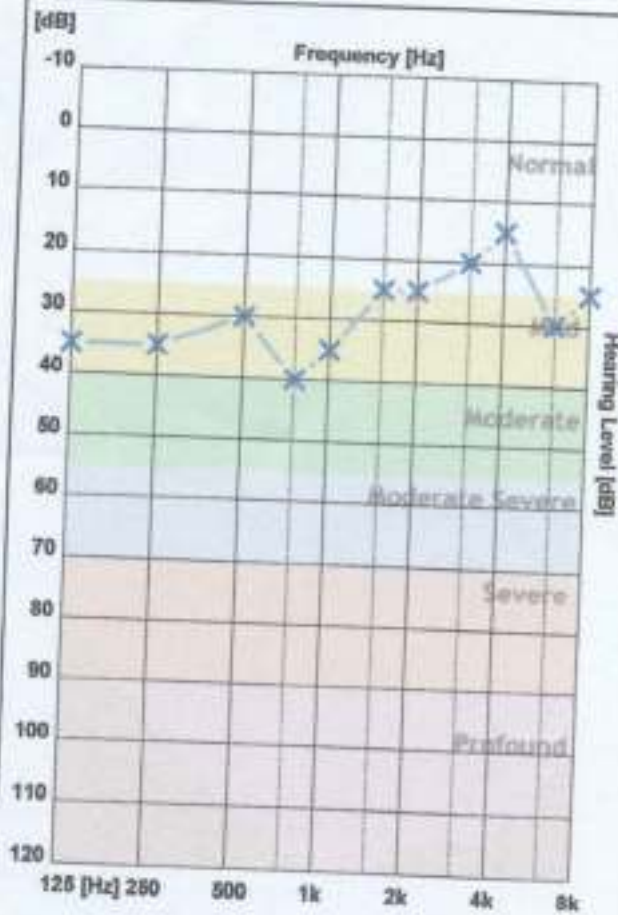
CR Number : 20240220114917

Registration Date : 20-Feb-2024

Age : 47

Gender : Male

Operator : spectrum diagnostics



	125 Hz	250 Hz	500 Hz	750 Hz	1000 H	1500 H	2000 H	3000 H	4000 H	6000 H	8000 H
X - Air Left	35	38	30	40	38	25	25	20	15	30	25
O - Air Right	30	35	35	35	30	25	20	20	20	25	25
> - Bone Left											
< - Bone Right											

	Average	High	Mid	Low
AIR Left	28.54 dB	22.50 dB	28.33 dB	35.00 dB
AIR Right	27.27 dB	22.50 dB	25.00 dB	33.75 dB

Clinical Notes :

Not Found

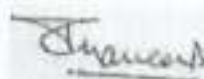


NAME : MRS.C BALA MURUGAN	DATE : 20/02/2024
AGE/SEX : 47YEARS/MALE	REG NO: 2002240020
REF BY : APOLO CLINIC	

## **CHEST PA VIEW**

- Visualised lungs are clear .
- Bilateral hila appears normal .
- Cardia is normal in size
- No pleural effusion

**IMPRESSION: No Significant Abnormality Detected**



**DR PRAVEEN B,DMRD ,DNB**  
Consultant Radiologist



PATIENT NAME	MR C BALA MURUGAN	ID NO	2002240020
AGE	47YEARS	SEX	MALE
REF BY	DR.APOLO CLINIC	DATE	20.02.2024

**2D ECHO CARDIOGRAPHIC STUDY**

**M-MODE**

AORTA	34mm
LEFT ATRIUM	37mm
RIGHT VENTRICLE	20mm
LEFT VENTRICLE (DIASTOLE )	52mm
LEFT VENTRICLE(SYSTOLE)	34mm
VENTRICULAR SEPTUM (DIASTOLE)	10mm
VENTRICULAR SEPTUM (SYSTOLE)	11mm
POSTERIOR WALL (DIASTOLE)	11mm
POSTERIOR WALL (SYSTOLE)	12mm
FRACTIONAL SHORTENING	30%
EJECTION FRACTION	58%

**DOPPLER /COLOUR FLOW**

Mitral Valve Velocity : MVE- 0.91m/s MVA – 0.64m/s E/A-1.42

Tissue Doppler : e' ( Septal) -11cm/s E/e'(Septal) -8

Velocity/ Gradient across the Pulmonic valve : 0.83m/s 3mmHg

Max. Velocity / Gradient across the Aortic valve : 1.19m/s 4mmHg

Velocity / Gradient across the Tricuspid valve : 2.60 m/s 26mmHg



PATIENT NAME	MR C BALA MURUGAN	ID NO	2002240020
AGE	47YEARS	SEX	MALE
REF BY	DR.APOLO CLINIC	DATE	20.02.2024

### 2D ECHO CARDIOGRAHIC STUDY

LEFT VENTRICLE	SIZE& THICKNESS	NORMAL
CONTRACTILITY	REGIONAL GLOBAL	NO RWMA

RIGHT VENTRICLE	: NORMAL
LEFT ATRIUM	: NORMAL
RIGHT ATRIUM	: NORMAL
MITRAL VALVE	: NORMAL
AORTIC VALVE	: NORMAL
PULMONARY VALVE	: NORMAL
TRICUSPID VALVE	: NORMAL
INTER ATRIAL SEPTUM	: INTACT
INTER VENTRICULAR SEPTUM	: INTACT
PERICARDIUM	: NORMAL
OTHERS	: - NIL

### IMPRESSION

- NO REGIONAL WALL MOTION ABNORMALITY PRESENT
- NORMAL VALVES AND DIMENSIONS
- NORMAL LV SYSTOLIC FUNCTION, LVEF- 58%
- GRADE II LV DIASTOLIC DYSFUCTION
- MILD TR / NO PAH
- NO CLOT / VEGETATION / EFFUSION

  
**DURGA V**  
ECHO TECHNICIAN

*The science of radiology is based upon interpretation of shadows of normal and abnormal tissue. This is neither complete nor accurate; hence, findings should always be interpreted in to the light of clinico-pathological correlation.*





NAME AND LAB NO	MR C BALA MURUGAN	REG-40020
AGE & SEX	47 YRS	MALE
DATE AND AREA OF INTEREST	20.02.2024	ABDOMEN & PELVIS
REF BY	C/O APOLO CLINIC	

**USG ABDOMEN AND PELVIS**

- LIVER:** Normal in size and diffuse increased echogenicity. No e/o IHBR dilatation. No evidence of focal lesion. Portal vein appears normal. CBD appears normal.
- GALL BLADDER:** Partially distended and shows few small polyps largest measuring 4 mm. Wall appears normal.
- SPLEEN:** Normal in size and echotexture. No e/o focal lesion.
- PANCREAS:** Head and body appears normal. Tail obscured by bowel gas shadows.
- RETROPERITONEUM:** Suboptimal visualised due to bowel gas
- RIGHT KIDNEY:** Right kidney measures 10.9 x1.9 cm, is normal in size & echotexture. Parapelvic simple cyst noted measuring 4.2 x3.8 cm. No evidence of calculus/ hydronephrosis. No solid lesions.
- LEFT KIDNEY:** Left kidney measures 11.1 x1.4 cm, is normal in size & echotexture. No evidence of calculus/ hydronephrosis. No solid lesions.
- URINARY BLADDER:** Well distended. No wall thickening/ calculi.
- PROSTATE:** Normal in size and echotexture.
- No evidence of ascites/pleural effusion.

**IMPRESSION:**

- > Grade I fatty liver.
- > Small gall bladder polyps- benign.
- Suggested clinical / lab correlation..

  
DR PRAVEEN B, DMRD, DNB  
CONSULTANT RADIOLOGIST

SCAN FOR EASY



Name : MR. C BALA MURUGAN	UHID : 2002240020	Bill Date : 20-Feb-2024 08:16 AM
Age / Gender : 47 years / Male	 2002240020	Sample Col. Date : 20-Feb-2024 08:16 AM
Ref. By Dr. : Dr. APOLO CLINIC		Result Date : 20-Feb-2024 02:16 PM
Reg. No. : 2002240020		Report Status : Final
C/o : Apollo Clinic		

Test Name	Result	Unit	Reference Value	Method
<b>Complete Haemogram-Whole Blood EDTA</b>				
Haemoglobin (HB)	14.90	g/dL	Male: 14.0-17.0 Female: 12.0-15.0 Newborn: 16.50 - 19.50	Spectrophotometer
Red Blood Cell (RBC)	4.88	million/cumm	3.50 - 5.50	Volumetric
Packed Cell Volume (PCV)	43.10	%	Male: 42.0-51.0 Female: 36.0-45.0	Impedance Electronic Pulse
Mean corpuscular volume (MCV)	88.20	fL	78.0- 94.0	Calculated
Mean corpuscular hemoglobin (MCH)	30.60	pg	27.50-32.20	Calculated
Mean corpuscular hemoglobin concentration (MCHC)	34.70	%	33.00-35.50	Calculated
Red Blood Cell Distribution Width SD (RDW-SD)	44.80	fL	40.0-55.0	Volumetric
Red Blood Cell Distribution CV (RDW-CV)	15.70	%	Male: 11.80-14.50 Female: 12.20-16.10	Impedance Volumetric
Mean Platelet Volume (MPV)	10.90	fL	8.0-15.0	Impedance Volumetric
Platelet	1.52	lakh/cumm	1.50-4.50	Impedance Volumetric
Platelet Distribution Width (PDW)	22.20	%	8.30 - 56.60	Impedance Volumetric
White Blood cell Count (WBC)	6170.00	cells/cumm	Male: 4000-11000 Female 4000-11000 Children: 6000-17500 Infants : 9000-30000	Impedance Volumetric Impedance
Neutrophils	56.70	%	40.0-75.0	Light scattering/Manual
Lymphocytes	34.70	%	20.0-40.0	Light scattering/Manual
Eosinophils	3.30	%	0.0-8.0	Light scattering/Manual

SCAN FOR LOCATION



Name	: MR. C BALA MURUGAN	UHID	: 2002240020	Bill Date	: 20-Feb-2024 08:16 AM
Age / Gender	: 47 years / Male			Sample Col. Date	: 20-Feb-2024 08:16 AM
Ref. By Dr.	: Dr. APOLO CLINIC			Result Date	: 20-Feb-2024 02:16 PM
Reg. No.	: 2002240020			Report Status	: Final
C/o	: Apollo Clinic				

Test Name	Result	Unit	Reference Value	Method
Monocytes	5.00	%	0.0-10.0	Light scattering/Manual
Basophils	0.30	%	0.0-1.0	Light scattering/Manual
Absolute Neutrophil Count	3.50	10 <sup>3</sup> /uL	2.0- 7.0	Calculated
Absolute Lymphocyte Count	2.14	10 <sup>3</sup> /uL	1.0-3.0	Calculated
Absolute Monocyte Count	0.31	10 <sup>3</sup> /uL	0.20-1.00	Calculated
Absolute Eosinophil Count	200.00	cells/cumm	40-440	Calculated
Absolute Basophil Count	0.02	10 <sup>3</sup> /uL	0.0-0.10	Calculated
Erythrocyte Sedimentation Rate (ESR)	10	mm/hr	Female : 0.0-20.0 Male : 0.0-10.0	Westergren

### Peripheral Smear Examination-Whole Blood EDTA

Method: (Microscopy-Manual)

- RBC'S : Normocytic Normochromic.  
WBC'S : Are normal in total number, morphology and distribution.  
Platelets : Adequate in number and normal in morphology.  
No abnormal cells or hemoparasites are present.  
Impression : Normocytic Normochromic Blood picture.



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SCAN FOR LOGO/QR



Name	: MR. C BALA MURUGAN	Bill Date	: 20-Feb-2024 08:16 AM
Age / Gender	: 47 years / Male	Sample Col. Date	: 20-Feb-2024 08:16 AM
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Reg. No.	: 2002240020	Report Status	: Final
C/o	: Apollo Clinic		

UHID : 2002240020  
  
 2002240020

Test Name	Result	Unit	Reference Value	Method
Glycosylated Haemoglobin (HbA1c)-Whole Blood EDTA	5.90	%	Non diabetic adults :<5.7 At risk (Prediabetes) : 5.7 - 6.4 Diagnosing Diabetes :>= 6.5 Diabetes Excellent Control : 6-7 Fair to good Control : 7-8 Unsatisfactory Control :8-10 Poor Control :>10	HPLC
Glycosylated Haemoglobin (HbA1c)				
Estimated Average Glucose(eAG)	122.63	mg/dL		Calculated

**Note:** 1. Since HbA1c reflects long term fluctuations in the blood glucose concentration, a diabetic patient who is recently under good control may still have a high concentration of HbA1c. Converse is true for a diabetic previously under good control but now poorly controlled.  
 2. Target goals of < 7.0 % may be beneficial in patients with short duration of diabetes, long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes, limited life expectancy or extensive co-morbid conditions, targeting a goal of < 7.0 % may not be appropriate.

**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.



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Dr. Nithin Reddy C,MD,Consultant Pathologist



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UHID : 2002240020



2002240020

Test Name	Result	Unit	Reference Value	Method
<b>KFT ( Kidney Function Test ) :</b>				
Blood Urea Nitrogen (BUN)-Serum	13.20	mg/dL	7.0-18.0	GLDH,Kinetic Assay
Creatinine-Serum	1.05	mg/dL	Male: 0.70-1.30	Modified kinetic Jaffe
Uric Acid-Serum	7.32	mg/dL	Female: 0.55-1.02 Male: 3.50-7.20	Uricase PAP
Sodium (Na+)-Serum	140.0	mmol/L	Female: 2.60-6.00 135.0-145.0	Ion-Selective Electrodes (ISE)
Potassium (K+)-Serum	4.17	mmol/L	3.5 to 5.5	Ion-Selective Electrodes (ISE)
Chloride(Cl-)-Serum	100.70	mmol/L	94.0-110.0	Ion-Selective Electrodes (ISE)



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Dr. Nithun Reddy C,MD,Consultant Pathologist

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<b>Name</b> : MR. C BALA MURUGAN	<b>UHID</b> : 2002240020	<b>Bill Date</b> : 20-Feb-2024 08:16 AM
<b>Age / Gender</b> : 47 years / Male		<b>Sample Col. Date</b> : 20-Feb-2024 08:16 AM
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<b>C/o</b> : Apollo Clinic		

Test Name	Result	Unit	Reference Value	Method
Vitamin D Total (25 Hydroxy Cholecalciferol)	16.0	ng/mL	30.0 -100.0	CLIA

Interpretation: Deficiency :<10, Insufficiency:10-30, Sufficiency:30-100, Toxicity:>100

Note: The assay measures both D2 (Ergocalciferol) and D3 (Cholecalciferol) metabolites of vitamin D.25 (OH)D is influenced by sunlight, latitude, skin pigmentation, sunscreen use and hepatic function. Optimal calcium absorption requires vitamin D 25 (OH) levels exceeding 75 nmol/L. It shows seasonal variation, with values being 40-50% lower in winter than in summer. Levels vary with age and are increased in pregnancy. A new test Vitamin D, Ultrasensitive by LC-MS/MS is also available.

Comments: Vitamin D promotes absorption of calcium and phosphorus and mineralization of bones and teeth. Deficiency in children causes Rickets and in adults leads to Osteomalacia. It can also lead to Hypocalcemia and Tetany. Vitamin D status is best determined by measurement of 25 hydroxy vitamin D, as it is the major circulating form and has longer half life (2-3 weeks) than 1,25 Dihydroxy vitamin D (5-8 hrs).

Decreased Levels: Inadequate exposure to sunlight, Dietary deficiency, Vitamin D malabsorption, Severe Hepatocellular disease, Drugs like Anticonvulsants, Nephrotic syndrome

Increased levels: Vitamin D intoxication.

Test Name	Result	Unit	Reference Value	Method
Vitamin B12-Serum	391.0	pg/mL	211.0-911.0	CLIA

Comments: Vitamin B12 performs many important functions in the body, but the most significant function is to act as coenzyme for reducing ribonucleotides to deoxyribonucleotides, a step in the formation of genes. Inadequate dietary intake is not the commonest cause for cobalamine deficiency. The most common cause is malabsorption either due to atrophy of gastric mucosa or diseases of terminal ileum. Cobalamine deficiency leads to Megaloblastic anemia and demyelination of large nerve fibres of spinal cord. Normal body stores are sufficient to last for 3-6 years. Sources of Vitamin B12 are liver, shellfish, fish, meat, eggs, milk, cheese & yogurt.

Decreased Levels: Lack of Intrinsic factor: Total or partial gastrectomy, Atrophic gastritis, Intrinsic factor antibodies, Malabsorption: Regional ileitis, resected bowel, Tropical Sprue, Celiac disease, pancreatic insufficiency, bacterial overgrowth & achlorhydria, Loss of ingested vitamin B12: fish tapeworm, Dietary deficiency: Vegetarians, Congenital disorders: Orotic aciduria & transcobalamine deficiency, Increased demand: Pregnancy specially last trimester.

Increased Levels: Chronic renal failure, Congestive heart failure, Acute & Chronic Myeloid Leukemia, Polycythemia vera, Carcinomas with liver metastasis, Liver disease, Drug induced cholestasis & Protein malnutrition.



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Dr. Nithan Reddy C, MD, Consultant Pathologist

SCAN FOR LOCATION



**Name** : MR. C BALA MURUGAN  
**Age / Gender** : 47 years / Male  
**Ref. By Dr.** : Dr. APOLO CLINIC  
**Reg. No.** : 2002240020  
**C/o** : Apollo Clinic  
**UHID** : 2002240020  
  
**Bill Date** : 20-Feb-2024 08:16 AM  
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**Report Status** : Final

Test Name	Result	Unit	Reference Value	Method
<b>Thyroid function tests (TFT)-Serum</b>				
Tri-Iodo Thyronine (T3)-Serum	1.36	ng/mL	Male: 0.60 - 1.81	Chemiluminescence Immunoassay (CLIA)
Thyroxine (T4)-Serum	10.00	µg/dL	Male: 5.50 - 12.10	Chemiluminescence Immunoassay (CLIA)
Thyroid Stimulating Hormone (TSH)-Serum	4.43	µIU/mL	Male: 0.35 - 5.50	Chemiluminescence Immunoassay (CLIA)

**Comments:** Triiodothyronine (T3) assay is a useful test for hyperthyroidism in patients with low TSH and normal T4 levels. It is also used for the diagnosis of T3 toxicosis. It is not a reliable marker for Hypothyroidism. This test is not recommended for general screening of the population without a clinical suspicion of hyperthyroidism.

**Reference range:** Cord: (37 Weeks): 0.5-1.41, Children:1-3 Days: 1.0-7.40,1-11 Months: 1.05-2.45,1-5 Years: 1.05-2.69,6-10 Years: 0.94-2.41,11-15 Years: 0.82-2.13,Adolescents (16-20 Years): 0.80-2.10

**Reference range:** Adults: 20-50 Years: 0.70-2.04, 50-90 Years: 0.40-1.81,

**Reference range in Pregnancy:** First Trimester : 0.81-1.90,Second Trimester : 1.0-2.60

**Increased Levels:** Pregnancy, Graves disease, T3 thyrotoxicosis, TSH dependent Hyperthyroidism, increased Thyroid-binding globulin (TBG).  
**Decreased Levels:** Nonthyroidal illness, hypothyroidism, nutritional deficiency, systemic illness, decreased Thyroid-binding globulin (TBG).

**Comments:** Total T4 levels offer a good index of thyroid function when TBG is normal and non-thyroidal illness is not present. This assay is useful for monitoring treatment with synthetic hormones (synthetic T3 will cause low total T4).It also helps to monitor treatment of Hyperthyroidism with Thiouracil or other anti-thyroid drugs.

**Reference Range:** Males : 4.6-10.5,Females : 5.5-11.0,> 60 Years: 5.0-10.70,Cord :7.40-13.10,Children:1-3 Days :11.80-22.60,1-2 Weeks : 9.90-16.60,1-4 Months: 7.20-14.40,1-5 Years : 7.30-15.0,5-10 Years: 6.4-13.3

1-15 Years: 5.60-11.70,Newborn Screen:1-5 Days: >7.5,6 Days : >6.5

**Increased Levels:** Hyperthyroidism, increased TBG, familial dysalbuminemic hyperthyroxinemia,Increased transthyretin, estrogen therapy, pregnancy.  
**Decreased Levels:** Primary hypothyroidism, pituitary TSH deficiency, hypothalamic TRH deficiency, non thyroidal illness, decreased TBG.

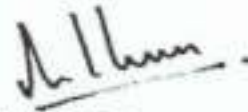
**Comments:** TSH is a glycoprotein hormone secreted by the anterior pituitary. TSH is a labile hormone & is secreted in a pulsatile manner throughout the day and is subject to several non-thyroidal pituitary influences. Significant variations in TSH can occur with circadian rhythm, hormonal status, stress, sleep deprivation, caloric intake, medication & circulating antibodies. It is important to confirm any TSH abnormality in a fresh specimen drawn after ~ 3 weeks before assigning a diagnosis, as the cause of an isolated TSH abnormality.

**Reference range in Pregnancy:** I- trimester:0.1-2.5; II- trimester:0.2-3.0; III- trimester:0.3-3.0

**Reference range in Newborns:** 0-4 days: 1.0-39.0; 2-20 Weeks:1.7-9.1

**Increased Levels:** Primary hypothyroidism, Subclinical hypothyroidism, TSH dependent Hyperthyroidism and Thyroid hormone resistance.  
**Decreased Levels:** Graves disease, Autonomous thyroid hormone secretion, TSH deficiency

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Dr. Nithin Raddy C,MD,Consultant Pathologist

SCAN FOR LOCATION



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Ref. By Dr. : Dr. APOLO CLINIC		Result Date : 20-Feb-2024 02:16 PM
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C/o : Apollo Clinic		

Test Name	Result	Unit	Reference Value	Method
<b>LFT-Liver Function Test -Serum</b>				
Bilirubin Total-Serum	1.00	mg/dL	0.2-1.0	Caffeine
Bilirubin Direct-Serum	0.19	mg/dL	0.0-0.2	Benzoate
Bilirubin Indirect-Serum	0.81	mg/dL	0.0-1.10	Diazotised Sulphanilic Acid
Aspartate Aminotransferase (AST/SGOT)-Serum	25.00	U/L	15.0-37.0	Direct Measure
Alanine Aminotransferase (ALT/SGPT)-Serum	52.00	U/L	Male:16.0-63.0 Female:14.0-59.0	UV with Pyridoxal - 5 - Phosphate
Alkaline Phosphatase (ALP)-Serum	75.00	U/L	Adult: 45.0-117.0 Children: 48.0-445.0 Infants: 81.90-350.30	UV with Pyridoxal - 5 - Phosphate
Protein, Total-Serum	6.79	g/dL	6.40-8.20	PNPP,AMP-Buffer
Albumin-Serum	4.30	g/dL	3.40-5.00	Biuret/Endpoint-With Blank
Globulin-Serum	2.49	g/dL	2.0-3.50	Bromocresol Purple
Albumin/Globulin Ratio-Serum	1.73	Ratio	0.80-2.0	Calculated



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Dr. Nithin Reddy C,MD,Consultant Pathologist





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UHID : 2002240020



Test Name	Result	Unit	Reference Value	Method
Fasting Blood Sugar (FBS)- Plasma	99	mg/dL	60.0-110.0	Hexo Kinase

**Comments:** Glucose, also called dextrose, one of a group of carbohydrates known as simple sugars (monosaccharides). Glucose has the molecular formula  $C_6H_{12}O_6$ . It is found in fruits and honey and is the major free sugar circulating in the blood of higher animals. It is the source of energy in cell function, and the regulation of its metabolism is of great importance (fermentation; gluconeogenesis). Molecules of starch, the major energy-reserve carbohydrate of plants, consist of thousands of linear glucose units. Another major compound composed of glucose is cellulose, which is also linear. Dextrose is the molecule D-glucose. Blood sugar, or glucose, is the main sugar found in the blood. It comes from the food you eat, and it is body's main source of energy. The blood carries glucose to all of the body's cells to use for energy. Diabetes is a disease in which your blood sugar levels are too high. Usage: Glucose determinations are useful in the detection and management of Diabetes mellitus.

Note: Additional tests available for Diabetic control are Glycated Hemoglobin (HbA1c), Fructosamine & Microalbumin urine

Comments: Conditions which can lead to lower postprandial glucose levels as compared to fasting glucose are excessive insulin release, rapid gastric emptying & brisk glucose absorption.

Probable causes : Early Type II Diabetes / Glucose intolerance, Drugs like Salicylates, Beta blockers, Pentamidine etc., Alcohol ,Dietary – Intake of excessive carbohydrates and foods with high glycemic index ? Exercise in between samples ? Family history of Diabetes, Idiopathic, Partial / Total Gastrectomy.

Post prandial Blood Glucose (PPBS)-Plasma	105	mg/dL	70-140	Hexo Kinase
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**Comments:** Glucose, also called dextrose, one of a group of carbohydrates known as simple sugars (monosaccharides). Glucose has the molecular formula  $C_6H_{12}O_6$ . It is found in fruits and honey and is the major free sugar circulating in the blood of higher animals. It is the source of energy in cell function, and the regulation of its metabolism is of great importance (fermentation; gluconeogenesis). Molecules of starch, the major energy-reserve carbohydrate of plants, consist of thousands of linear glucose units. Another major compound composed of glucose is cellulose, which is also linear. Dextrose is the molecule D-glucose. Blood sugar, or glucose, is the main sugar found in the blood. It comes from the food you eat, and it is body's main source of energy. The blood carries glucose to all of the body's cells to use for energy. Diabetes is a disease in which your blood sugar levels are too high. Usage: Glucose determinations are useful in the detection and management of Diabetes mellitus.

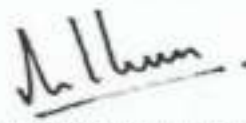
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Dr. Nithum Reddy C, MD, Consultant Pathologist



Name	: MR. C BALA MURUGAN	UHID	: 2002240020	Bill Date	: 20-Feb-2024 08:16 AM
Age / Gender	: 47 years / Male			Sample Col. Date	: 20-Feb-2024 08:16 AM
Ref. By Dr.	: Dr. APOLO CLINIC			Result Date	: 20-Feb-2024 02:16 PM
Reg. No.	: 2002240020			Report Status	: Final
C/o	: Apollo Clinic				

Test Name	Result	Unit	Reference Value	Method
<b>Lipid Profile-Serum</b>				
Cholesterol Total-Serum	240.00	mg/dL	Male: 0.0 - 200	Cholesterol Oxidase/Peroxidase
Triglycerides-Serum	108.00	mg/dL	Male: 0.0 - 150	Lipase/Glycerol Dehydrogenase
High-density lipoprotein (HDL) Cholesterol-Serum	52.00	mg/dL	Male: 40.0 - 60.0	Accelerator/Selective Detergent
Non-HDL cholesterol-Serum	188	mg/dL	Male: 0.0 - 130	Calculated
Low-density lipoprotein (LDL) Cholesterol-Serum	171.00	mg/dL	Male: 0.0 - 100.0	Cholesterol esterase and cholesterol oxidase
Very-low-density lipoprotein (VLDL) cholesterol-Serum	22	mg/dL	Male: 0.0 - 40	Calculated
Cholesterol/HDL Ratio-Serum	4.62	Ratio	Male: 0.0 - 5.0	Calculated

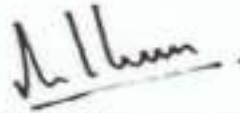
**Interpretation:**

Parameter	Desirable	Borderline High	High	Very High
Total Cholesterol	<200	200-239	>240	
Triglycerides	<150	150-199	200-499	>500
Non-HDL cholesterol	<130	160-189	190-219	>220
Low-density lipoprotein (LDL) Cholesterol	<100	100-129	160-189	>190

**Comments:** As per Lipid Association of India (LAI), for routine screening, overnight fasting preferred but not mandatory. Indians are at very high risk of developing Atherosclerotic Cardiovascular (ASCVD). Among the various risk factors for ASCVD such as dyslipidemia, Diabetes Mellitus, sedentary lifestyle, Hypertension, smoking etc., dyslipidemia has the highest population attributable risk for MI both because of direct association with disease pathogenesis and very high prevalence in Indian population. Hence monitoring lipid profile regularly for effective management of dyslipidemia remains one of the most important healthcare targets for prevention of ASCVD. In addition, estimation of ASCVD risk is an essential, initial step in the management of individuals requiring primary prevention of ASCVD. In the context of lipid management, such a risk estimate forms the basis for several key therapeutic decisions, such as the need for and aggressiveness of statin therapy.



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SCAN FOR LOGO



<b>Name</b> : MR. C BALA MURUGAN	<b>UHID</b> : 2002240020	<b>Bill Date</b> : 20-Feb-2024 08:16 AM
<b>Age / Gender</b> : 47 years / Male		<b>Sample Col. Date</b> : 20-Feb-2024 08:16 AM
<b>Ref. By Dr.</b> : Dr. APOLO CLINIC	2002240020	<b>Result Date</b> : 20-Feb-2024 02:16 PM
<b>Reg. No.</b> : 2002240020		<b>Report Status</b> : Final
<b>C/o</b> : Apollo Clinic		

Test Name	Result	Unit	Reference Value	Method
Prostate-Specific Antigen(PSA)-0.78 Serum		ng/mL	0.0-4.0	CLIA

Note: 1. This is a recommended test for detection of prostate cancer along with Digital Rectal Examination (DRE) in males above 50 years of age.  
 2. False negative / positive results are observed in patients receiving mouse monoclonal antibodies for diagnosis or therapy.  
 3. PSA levels may appear consistently elevated / depressed due to the interference by heterophilic antibodies & nonspecific protein binding.  
 4. Immediate PSA testing following digital rectal examination, ejaculation, prostatic massage, indwelling catheterization, ultrasonography and needle biopsy of prostate is not recommended as they falsely elevate levels  
 5. PSA values regardless of levels should not be interpreted as absolute evidence of the presence or absence of disease. All values should be correlated with clinical findings and results of other investigations  
 6. Sites of Non-prostatic PSA production are breast epithelium, salivary glands, periurethral & anal glands, cells of male urethra & breast milk  
 7. Physiological decrease in PSA level by 18% has been observed in hospitalized /sedentary patients either due to supine position or suspended sexual activity.  
 Recommended Testing Intervals: Pro-operatively ( Baseline), 2-4 days post-operatively,Prior to discharge from hospital,Monthly followup if levels are high or show a rising trend.  
 Clinical Use: -An aid in the early detection of Prostate cancer when used in conjunction with Digital rectal examination in males more than 50 years of age and in those with two or more affected first degree relatives.  
 -Followup and management of Prostate cancer patients  
 -Detect metastatic or persistent disease in patients following surgical or medical treatment of Prostate cancer.  
 Increased Levels : Prostate cancer,Benign Prostatic Hyperplasia,Prostatitis,Genitourinary infections.



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Test Name	Result	Unit	Reference Value	Method
Alkaline Phosphatase (ALP)- Serum	75.00	U/L	Adult: 45.0-117.0 Children: 48.0-445.0 Infants: 81.90-350.30	PNPP,AMP-Buffer

**Comments:** Alkaline phosphatases are a group of isoenzymes, located on the outer layer of the cell membrane; they catalyze the hydrolysis of organic phosphate esters present in the extracellular space. Zinc and magnesium are important co-factors of this enzyme. Although alkaline phosphatases are present in different body tissues and have different physicochemical properties, they are true isoenzymes because they catalyze the same reaction. In the liver, alkaline phosphatase is cytosolic and present in the canalicular membrane of the hepatocyte. Alkaline phosphatase is present in decreasing concentrations in the placenta, ileal mucosa, kidney, bone, and liver. The majority of alkaline phosphatase in serum (more than 80%) is released from liver and bone, and in small amounts from the intestine. Concentrations are increased in patients with biliary obstructive disorders, tumors of liver and bone etc.

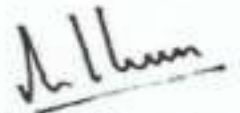
Post Prandial Urine Sugar	Negative		Negative	Dipstick/Benedicts(Man
Gamma-Glutamyl Transferase (GGT)-Serum	93.00	U/L	Male: 15.0-85.0 Female: 5.0-55.0	Other g-Glut-3-carboxy-nitro

**Comments:** Gamma-glutamyltransferase (GGT) is primarily present in kidney, liver, and pancreatic cells. Small amounts are present in other tissues. Even though renal tissue has the highest level of GGT, the enzyme present in the serum appears to originate primarily from the hepatobiliary system, and GGT activity is elevated in any and all forms of liver disease. It is highest in cases of intra- or posthepatic biliary obstruction, reaching levels some 5 to 30 times normal. GGT is more sensitive than alkaline phosphatase (ALP), leucine aminopeptidase, aspartate transaminase, and alanine aminotransferase in detecting obstructive jaundice, cholangitis, and cholecystitis; its rise occurs earlier than with these other enzymes and persists longer. Only modest elevations (2-5 times normal) occur in infectious hepatitis, and in this condition, GGT determinations are less useful diagnostically than are measurements of the transaminases. High elevations of GGT are also observed in patients with either primary or secondary (metastatic) neoplasms. Elevated levels of GGT are noted not only in the sera of patients with alcoholic cirrhosis but also in the majority of sera from persons who are heavy drinkers. Studies have emphasized the value of serum GGT levels in detecting alcohol-induced liver disease. Elevated serum values are also seen in patients receiving drugs such as phenytoin and phenobarbital, and this is thought to reflect induction of new enzyme activity.

Fasting Urine Glucose-Urine	Negative		Negative	Dipstick/Benedicts (Manual)
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Dr. Nithin Reddy C,MD, Consultant Pathologist

SCAN FOR LOCATION



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Test Name	Result	Unit	Reference Value	Method
<b>Urine Routine Examination-Urine</b>				
<b>Physical Examination</b>				
Colour	Pale Yellow		Pale Yellow	Visual
Appearance	Clear		Clear	Visual
Reaction (pH)	6.0		5.0-7.5	Dipstick
Specific Gravity	1.025		1.000-1.030	Dipstick
<b>Biochemical Examination</b>				
Albumin	Negative		Negative	Dipstick/Precipitation
Glucose	Negative		Negative	Dipstick/Benedicts
Bilirubin	Negative		Negative	Dipstick/Fouchets
Ketone Bodies	Negative		Negative	Dipstick/Rotheras
Urobilinogen	Normal		Normal	Dipstick/Ehrlichs
Nitrite	Negative		Negative	Dipstick
<b>Microscopic Examination</b>				
Pus Cells	2-3	hpf	0.0-5.0	Microscopy
Epithelial Cells	2-3	hpf	0.0-10.0	Microscopy
RBCs	Absent	hpf	Absent	Microscopy
Casts	Absent		Absent	Microscopy
Crystals	Absent		Absent	Microscopy
Others	Absent		Absent	Microscopy

Comments: The kidneys help infiltration of the blood by eliminating waste out of the body through urine. They also regulate water in the body by conserving electrolytes, proteins, and other compounds. But due to some conditions and abnormalities in kidney function, the urine may encompass some abnormal constituents, which are not normally present. A complete urine examination helps in detecting such abnormal constituents in urine. Several disorders can be detected by identifying and measuring the levels of such substances. Blood cells, bilirubin, bacteria, pus cells, epithelial cells may be present in urine due to kidney disease or infection. Routine urine examination helps to diagnose kidney diseases, urinary tract infections, diabetes and other metabolic disorders.



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