

DIAGNOSTICS REPORT

 Patient Name
 : Mr. RAJESH JADHAV
 Order Date
 : 15/06/2024 10:34

 Age/Sex
 : 36 Year(s)/Male
 Report Date
 : 15/06/2024 11:07

UHID : SHHM.97222

Ref. Doctor : self Facility : SEVENHILLS HOSPITAL,

Address : ROOM NO. 114, TRIMURTI

CHWL, SHIVAJI NAGAR, NEAR SHIVALYA MANDIR,, Malad East,Mumbai, Maharastra, 400097 Mobile : 9967646952

MUMBAI

2D ECHOCARDIOGRAPHY WITH COLOUR DOPPLER STUDY

Normal LV and RV systolic function.

Estimated LVEF = 60%

No LV regional wall motion abnormality at rest.

All valves are structurally and functionally normal.

Normal sized cardiac chambers.

No LV Diastolic dysfunction.

No pulmonary arterial hypertension.

No regurgitation across any other valves.

Normal forward flow velocities across all the cardiac valves.

Aorta and pulmonary artery dimensions: normal.

IAS / IVS: Intact.

No evidence of clot, vegetation, calcification, pericardial effusion.

COLOUR DOPPLER: NO MR/AR.

Openink V. Manustana.

Dr.Ganesh Vilas Manudhane M.ch,MCH/DM

RegNo: 2011/06/1763

 Patient Name
 : Mr. RAJESH JADHAV
 Age/Sex
 : 36 Year(s) / Male

 UHID
 : SHHM.97222
 Order Date
 : 15/06/2024 10:34

Episode : OP

Ref. Doctor : self **Mobile No** : 9967646952

DOB : 15/08/1987

Facility: SEVENHILLS HOSPITAL, MUMBAI

Blood Bank

Test Name Result

Sample No: O0338294A Collection Date: 15/06/24 10:39 Ack Date: 15/06/2024 11:36 Report Date: 15/06/24 12:04

| BLOOD GROUPING/ CROSS-MATCHING BY SEMI AUTOMATION | | | | |
|---|----------|--|--|--|
| BLOOD GROUP (ABO) | 'A' | | | |
| Rh Type Method - Column Agglutination | POSITIVE | | | |

REMARK: THE REPORTED RESULTS PERTAIN TO THE SAMPLE RECEIVED AT THE BLOOD CENTRE.

Interpretation:

Blood typing is used to determine an individual's blood group, to establish whether a person is blood group A, B, AB, or O and whether he or she is Rh positive or Rh negative. Blood typing has the following significance,

- Ensure compatibility between the blood type of a person who requires a transfusion of blood or blood components and the ABO and Rh type of the unit of blood that will be transfused.
- Determine compatibility between a pregnant woman and her developing baby (fetus). Rh typing is especially important during pregnancy because a mother and her fetus could be incompatible.
- Determine the blood group of potential blood donors at a collection facility.
- Determine the blood group of potential donors and recipients of organs, tissues, or bone marrow, as part of a workup for a transplant procedure.

End of Report

Dr.Pooja Vinod Mishra MD Pathology

Jr Consultant Pathologist, MMC Reg No. 2017052191

RegNo: 2017/05/2191



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Patient Name : Mr. RAJESH JADHAV Age/Sex : 36 Year(s) / Male

Result

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Unit

Facility: SEVENHILLS HOSPITAL, MUMBAI

Biological Reference Interval

Unsatisfactory control ABOVE 10%

Biochemistry

| Sample No : | O0338294A | Collection Date : | 15/06/24 10 |):39 | Ack Date : | 15/06/2024 | 10:58 | Report Date : | 15/06/24 11:46 |
|-----------------------|------------------|-------------------|-------------|------|------------|------------|-------|---------------|--|
| GLYCOSLY | YATED HAEMO | GLOBIN (HBA1C) | | | | | | | |
| HbA1c Method - Imn | nunoturbidimetry | | | 5.88 | | | C | % | 4 to 6% Non-diabetic 6.07.0% Excellent control 7.08.0% Fair to good control 8.010% |

Estimated Average Glucose (eAG) Method - Calculated Poor control 122.06 mg/dl 90 - 126

NOTES :-

Test Name

- 1. HbA1c is used for monitoring diabetic control. It reflects the mean plasma glucose over three months
- 2. HbA1c may be falsely low in diabetics with hemolytic disease. In these individuals a plasma fructosamine level may be used which evaluates diabetes over 15 days.
- 3. Inappropriately low HbA1c values may be reported due to hemolysis, recent blood transfusion, acute blood loss, hypertriglyceridemia, chronic liver disease. Drugs like dapsone, ribavirin, antiretroviral drugs, trimethoprim, may also cause interference with estimation of HbA1c, causing falsely low values.
- 4. HbA1c may be increased in patients with polycythemia or post-splenectomy.
- 5. Inappropriately higher values of HbA1c may be caused due to iron deficiency, vitamin B12 deficiency, alcohol intake, uremia, hyperbilirubinemia and large doses of aspirin.
- 6. Trends in HbA1c are a better indicator of diabetic control than a solitary test.
- 7. Any sample with >15% HbA1c should be suspected of having a hemoglobin variant, especially in a non-diabetic patient. Similarly, below 4% should prompt additional studies to determine the possible presence of variant hemoglobin.
- 8. HbA1c target in pregnancy is to attain level <6 %.
- 9. HbA1c target in paediatric age group is to attain level < 7.5 %.

Method: turbidimetric inhibition immunoassay (TINIA) for hemolyzed whole blood



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Reference: American Diabetes Associations. Standards of Medical Care in Diabetes 2015

| GLUCOSE-PLASMA-FASTING | | | |
|------------------------|-------|-------|----------|
| Glucose,Fasting | 86.41 | mg/dl | 70 - 100 |

American Diabetes Association Reference Range:

Normal: < 100 mg/dl

Impaired fasting glucose(Prediabetes): 100 - 126 mg/dl

Diabetes : >= 126 mg/dl

References:

1)Pack Insert of Bio system

2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation :-

Conditions that can result in an elevated blood glucose level include: Acromegaly, Acute stress (response to trauma, heart attack, and stroke for instance), Chronic kidney disease, Cushing syndrome, Excessive consumption of food, Hyperthyroidism, Pancreatitis.

A low level of glucose may indicate hypoglycemia, a condition characterized by a drop in blood glucose to a level where first it causes nervous system symptoms (sweating, palpitations, hunger, trembling, and anxiety), then begins to affect the brain (causing confusion, hallucinations, blurred vision, and sometimes even coma and death). A low blood glucose level (hypoglycemia) may be

seen with:Adrenal insufficiency, Drinking excessive alcohol, Severe liver disease, Hypopituitarism, Hypothyroidism, Severe infections, Severe heart failure, Chronic kidney (renal) failure, Insulin overdose, Tumors that produce insulin (insulinomas), Starvation.

| <u>Lipid Profile</u> | | |
|----------------------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |



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| Total Cholesterol | 208.19 ▲ (H) | mg/dl | CHILD Desirable - Less than: 170 CHILD Borderline High: 170-199 CHILD High - More than: 200 ADULT Desirable - Less than: 200 ADULT Borderline High: 200-239 ADULT High - More than: 240 |
|--|--------------------|-------|---|
| Triglycerides Method - glycerol Phosphate Oxidase/Peroxide | 321.06 ▲ (H) | mg/dl | NORMAL : <150 Borderline High : 150-199 High : 200-499 Very High : > 500 |
| HDL Cholesterol Method - Enzymatic immuno inhibition | 30.53 ▼ (L) | mg/dl | Desirable - Above 60 Borderline Risk : 40-59 Undesirable - Below :40 |
| LDL Cholesterol Method - Calculated | 113.45 | mg/dl | Desirable - Below : 130 Borderline Risk : 130-159 Undesirable - Above : 160 |
| VLDL Cholesterol Method - Calculated | 64.21 ▲ (H) | mg/dl | 5 - 51 |
| Total Cholesterol / HDL Cholesterol Ratio - Calculated Method - Calculated | 6.82 ▲ (H) | RATIO | 0 - 5 |



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LDL / HDL Cholesterol Ratio - Calculated RATIO 0 - 3.6 3.72 ▲ (H) Method - Calculated

1) Biological Reference Interval is as per National Cholestrol Education Program (NCEP) Guidlines.

2) tests done on Fully Automated Biosystem BA-400 Biochemistry Analyser.

Interpretation

- 1. Triglycerides: When triglycerides are very high greater than 1000 mg/dL, there is a risk of developing pancreatitis in children and adults. Triglycerides change dramatically in response to meals, increasing as much as 5 to 10 times higher than fasting levels just a few hours after eating. Even fasting levels vary considerably day to day. Therefore, modest changes in fasting triglycerides measured on different days are not considered to be abnormal.
- 2. HDL-Cholesterol: HDL- C is considered to be beneficial, the so-called "good" cholesterol, because it removes excess cholesterol from tissues and carries it to the liver for disposal. If HDL-C is less than 40 mg/dL for men and less than 50 mg/dL for women, there is an increased risk of heart disease that is independent of other risk factors, including the LDL-C level. The NCEP guidelines suggest that an HDL cholesterol value greater than 60 mg/dL is protective and should be treated as a negative
- risk factor.
- 3. LDL-Cholesterol: Desired goals for LDL-C levels change based on individual risk factors. For young adults, less than 120 mg/dL is acceptable. Values between 120-159 mg/dL are considered Borderline high. Values greater than 160 mg/dL are considered high. Low levels of LDL cholesterol may be seen in people with an inherited lipoprotein deficiency and in people with hyperthyroidism, infection, inflammation, or cirrhosis.

| Uric Acid (Serum) Method - Uricase | | | |
|------------------------------------|------------------|-------|-----------|
| Uric Acid Method - Uricase | 7.7 ▲ (H) | mg/dl | 3.5 - 7.2 |

References:

- 1)Pack Insert of Bio system
- 2) TIETZ Textbook of Clinical chemistry and Molecular DiagnosticsEdited by: Carl A.burtis.Edward R. Ashwood.David e. Bruns

Interpretation:-

Uric acid is produced by the breakdown of purines. Purines are nitrogen-containing compounds found in the cells of the body,

including our DNA. Increased concentrations of uric acid can cause crystals to form in the joints, which can lead to the joint

inflammation and pain characteristic of gout. Low values can be associated with some kinds of liver or kidney



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diseases, Fanconi

syndrome, exposure to toxic compounds, and rarely as the result of an inherited metabolic defect (Wilson disease).

| Total Bilirubin - SERUM Method - Diazo | 0.65 | mg/dl | 0 - 2 |
|--|------|-------|---------|
| Direct Bilirubin SERUM Method - Diazotization | 0.27 | mg/dl | 0 - 0.4 |
| Indirect Bilirubin - Calculated Method - Calculated | 0.38 | mg/dl | |
| BUN-SERUM | | | |
| BUN - SERUM Method - Urease-GLDH | 8.41 | mg/dl | 4 - 18 |

References:

1)Pack Insert of Bio system

2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

| Calcium | 2.52 | ,,, | 0.6 10.3 |
|-------------------|------|---------|------------|
| Method - Arsenazo | 9.69 | mg/dl 8 | 8.6 - 10.3 |

References:

1)Pack Insert of Bio system

2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation:-

Calcium is the most abundant and one of the most important minerals in the body. It is essential for cell signaling and the proper

functioning of muscles, nerves, and the heart. Calcium is needed for blood clotting and is crucial for the formation, density, and

maintenance of bones. The causes of hypercalcemia include Hyperparathyroidism and dietary intake. Low blood protein levels.

especially a low level of albumin, which can result from liver disease or malnutrition, both of which may result from alcoholism

or other illnesses.

| CREATININE-SERUM | | | |
|---|------|-------|-----------|
| Creatinine - SERUM Method - Jaffes Kinetic | 0.98 | mg/dl | 0.5 - 1.3 |
| References: | | | |



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Notes:

Creatinine is a chemical waste molecule that is generated from muscle metabolism. Creatinine is produced from creatine, a molecule of major importance for energy production in muscles. Approximataly 1-2% of the body's creatine is converted to creatinine every day. Creatinine is transported through the bloodstream to the kidneys. The kidneys filter out host of the creatinine and dispose of it in the urine. The kidneys maintain the blood creatinine in a normal ranges. Creatinine has been found to be a fairly reliable indicator of kidney function.

| Albumin - SERUM | | | |
|---|-----|-------|-----------|
| Albumin - SERUM Method - Bromo Cresol Green(BCG) | 4.2 | gm/dl | 3.5 - 5.2 |

References:

- 1) Pack Insert of Bio system
- 2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

| GLUCOSE-PLASMA POST PRANDIAL | | | |
|------------------------------|--------|-------|----------|
| Glucose, Post Prandial | 112.14 | mg/dl | 70 - 140 |

American Diabetes Association Reference Range:

Post-Prandial Blood Glucose:
Non- Diabetic: Up to 140mg/dL
Pre-Diabetic: 140-199 mg/dL
Diabetic :>200 mg/dL

References:

- 1)Pack Insert of Bio system
- 2) Tietz Textbook Of Clinical Chemistry And Molecular Diagnostics, 6th Ed, Editors: Rifai et al. 2018

Interpretation :-

Conditions that can result in an elevated blood glucose level include: Acromegaly, Acute stress (response to trauma, heart attack, and stroke for instance), Chronic kidney disease, Cushing syndrome, Excessive consumption of food, Hyperthyroidism, Pancreatitis.

A low level of glucose may indicate hypoglycemia, a condition characterized by a drop in blood glucose to a level where first it causes nervous system symptoms (sweating, palpitations, hunger, trembling, and anxiety), then begins to



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affect the brain (causing confusion, hallucinations, blurred vision, and sometimes even coma and death). A low blood glucose level (hypoglycemia) may be

seen with:Adrenal insufficiency, Drinking excessive alcohol, Severe liver disease, Hypopituitarism, Hypothyroidism, Severe infections, Severe heart failure, Chronic kidney (renal) failure, Insulin overdose, Tumors that produce insulin (insulinomas), Starvation.

End of Report

Dr.Ritesh Kharche

MD, PGD-HM
Consultant Pathologist and Director of

Laboratory Services
RegNo: 2006/03/1680



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Unit

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Biological Reference Interval

IMMUNOLOGY

| Sample No: 00338294C | Collection Date : 15/06/24 10 | 0:39 Ack Date : 15/06/2024 10:59 | Report Date : | 15/06/24 13:49 |
|--------------------------------|-------------------------------|--|---------------|----------------|
| ACID PHOSPHATASE -TO | <u>OTAL</u> | | | |
| Comment | | OUTSOURCE DONE, FOR REPORT PLS FOLLOWUP WITH LAB(L2B4) | | |
| FREE TFT (FT3,FT4,TSH BY CLIA) | | | | |
| Free T3 - SERUM | | 3.2 | pg/ml | 2.00 - 4.40 |
| Free T4 - SERUM | | 1.37 | ng/dl | 0.93 - 1.70 |
| TSH - SERUM Method - CLIA | | 1.97 | uIU/ml | 0.40 - 4.50 |

Reference Ranges (TSH) Pregnancy:

1st Trimester: 0.1 - 2.5 2nd Trimester: 0.2 - 3.0 3rd Trimester: 0.3 - 3.0

Reference:

Episode

Test Name

1. Clinical Chemistry and Molecular Diagnostics, Tietz Fundamentals, 7th Edition & Endocronology Guideliens

Interpretation :-

It is recommended that the following potential sources of variation should be considered while interpreting thyroid hormone results:

- 1. Thyroid hormones undergo rhythmic variation within the body this is called circadian variation in TSH secretion: Peak levels are seen between 2-4 am. Minimum levels seen between 6-10 am. This variation may be as much as 50% thus, influence of sampling time needs to be considered for clinical interpretation.
- 2. Circulating forms of T3 and T4 are mostly reversibly bound with Thyroxine binding globulins (TBG), and to a lesser extent with albumin and Thyroid binding PreAlbumin. Thus the conditions in which TBG and protein levels alter such as chronic liver disorders, pregnancy, excess of estrogens, androgens, anabolic steroids and glucocorticoids may cause misleading total T3, total T4 and TSH interpretations.

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3. Total T3 and T4 levels are seen to have physiological rise during pregnancy and in patients on steroid treatment.

4. T4 may be normal the presence of hyperthyroidism under the following conditions: T3 thyrotoxicosis, Hypoproteinemia related reduced binding, during intake of certain drugs (eg Phenytoin, Salicylates etc)

5. Neonates and infants have higher levels of T4 due to increased concentration of TBG

- 6. TSH levels may be normal in central hypothyroidism, recent rapid correction of hypothyroidism or hyperthyroidism, pregnancy, phenytoin therapy etc.
- 7. TSH values of <0.03 uIU/mL must be clinically correlated to evaluate the presence of a rare TSH variant in certain individuals which is undetectable by conventional methods.
- 8. Presence of Autoimmune disorders may lead to spurious results of thyroid hormones
- 9. Various drugs can lead to interference in test results.
- 10. It is recommended that evaluation of unbound fractions, that is free T3 (fT3) and free T4 (fT4) for clinic-pathologic correlation, as these are the metabolically active forms.

| PSA -TOTAL-SERUM Method - (Serum, ECLIA) | | | |
|---|------|-------|-------------|
| PSA- Prostate Specific Antigen - SERUM | 0.51 | ng/ml | 0.00 - 4.00 |

Biological Reference Interval :-Conventional for all ages: <=4

60 - 69 yrs: 0 - 4.5

Episode

Note: Change in method and Reference range

INTERPRETATION:

Prostate-specific antigen (PSA) is a glycoprotein that is produced by the prostate gland, the lining of the urethra, and the bulbourethral gland. PSA exists in serum mainly in two forms, complexed to alpha-1-anti-chymotrypsin (PSA-ACT complex) and unbound (free PSA). Increases in prostatic glandular size and tissue damage caused by benign prostatic hypertrophy, prostatitis, or prostate cancer may increase circulating PSA levels. Transient increase in PSA can also be seen following per rectal digital or sonological examinations.

NOTE:

Patients on Biotin supplement may have interference in some immunoassays. With individuals taking high dose Biotin (more than 5 mg per day) supplements, at least 8-hour wait time before blood draw is recommended. Ref: Arch Pathol Lab Med—Vol 141 November 2017

| Ref. Archi Patriol Lab Med—vol 141, November 2017 | | | | |
|---|--|--|--|--|
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| Vitamin D3 - SERUM Method - CLIA | 13.06 | ng/ml | DEFICIENCY:- < 10 MODERATE INSUFFICIENCY:- 11 - 20 MILD INSUFFICIENCY:- 21 - 25 SUFFICIENCY:- 26 - 70 TOXICITY:- > 70 |
|-----------------------------------|-------|-------|---|
| VITAMIN D -TOTAL(25 HYDROXY) | | | |

Interpretation :-

Vitamin D is a lipid-soluble steroid hormone that is produced in the skin through the action of sunlight or is obtained from dietary sources The role of vitamin D in maintaining homeostasis of calcium and phosphorus is well established.

The assay measures both D2 (Ergocalciferol) and D3 (Cholecalciferol) metabolites of vitamin D. 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)

The reference ranges discussed in the preceding are related to total 25-OHD; as long as the combined total is 30 ng/mL or more, the patient has sufficient vitamin D. Levels needed to prevent rickets and osteomalacia (15 ng/mL) are lower than those that dramatically suppress parathyroid hormone levels (20–30 ng/mL). In turn, those levels are lower than levels needed to optimize intestinal calcium absorption (34 ng/mL). Neuromuscular peak performance is associated with levels approximately 38 ng/mL.

| Vitamin B12 - SERUM Method - CLIA | 191.7 ▼ (L) | pg/ml | 211.00 - 911.00 |
|------------------------------------|--------------------|-------|-----------------|
| <u>Vitamin B12 - SERUM</u> | | | |

Interpretation :-

Vitamin B12 is a coenzyme that is involved in two very important metabolic functions vital to normal cell growth and DNA synthesis: 1) the synthesis of methionine,

and 2) the conversion of methylmalonyl CoA to succinyl CoA. Deficiency of this vitamin can lead to megaloblastic anemia and ultimately to severe neurological problems. Also causes macrocytic anemia, glossitis, peripheral

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neuropathy, weakness, hyperreflexia, ataxia, loss of proprioception, poor coordination, and affective behavioral changes. A significant increase in RBC MCV may be an important indicator of vitamin B12 deficiency.

Patients taking vitamin B12 supplementation may have misleading results. A normal serum concentration of B12 does not rule out tissue deficiency of vitamin B12. The most sensitive test for B12 deficiency at the cellular level is the assay for MMA. If clinical symptoms suggest deficiency, measurement of MMA and homocysteine should be considered, even if serum B12 concerations are normal.

- End of Report

Dr.Ritesh Kharche MD, PGD-HM

Consultant Pathologist and Director of

Laboratory Services RegNo: 2006/03/1680 Dr.Nipa Dhorda

MD Pathologist

RegNo: 91821



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Urinalysis

| Test Name Res | ult Unit | Bio | logical Reference Interval |
|--|----------------------------------|---------------|----------------------------|
| Sample No: O0338294D Collection Date: 15/06/24 1 | 0:39 Ack Date : 15/06/2024 10:59 | Report Date : | 15/06/24 13:48 |
| Physical Examination | | | |
| QUANTITY | 40 | ml | |
| Colour | Pale Yellow | | |
| Appearance | Clear | | |
| DEPOSIT | Absent | | Absent |
| pH | Acidic | | |
| Specific Gravity | 1.015 | | |
| Chemical Examination | | | |
| Protein | Absent | | Absent |
| Glucose | Absent | | Absent |
| ketones | Absent | | Absent |
| Blood | NEGATIVE | | Negative |
| Bilirubin | Negative | | |
| Urobilinogen | normal | | Normal |
| NITRATE | Absent | | Absent |
| LEUKOCYTES | Absent | | Absent |
| Microscopic Examination | | | |

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| Pus cells | 2-3 | /HPF | |
|---------------------|--------|------|--------|
| Epithelial Cells | 1-2 | /HPF | |
| RBC | absent | /HPF | Absent |
| Cast | absent | /LPF | Absent |
| Crystal | absent | /HPF | Absent |
| Amorphous Materials | Absent | | Absent |
| Yeast | Absent | | Absent |
| Bacteria | Absent | | Absent |

End of Report

Dr.Nipa Dhorda MD

Nipa

Pathologist RegNo: 91821



DIAGNOSTICS REPORT

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: SHHM.97222 UHID

: self Facility : SEVENHILLS HOSPITAL, Ref. Doctor

: ROOM NO. 114, TRIMURTI Address

MUMBAI : 9967646952 Mobile CHWL, SHIVAJI NAGAR, NEAR

SHIVALYA MANDIR,, Malad East, Mumbai, Maharastra, 400097

USG ABDOMEN AND PELVIS

Liver is normal in size (14.5 cm) and shows bright echotexture. No focal liver parenchymal lesion is seen.

Intrahepatic portal and biliary radicles are normal.

Gall-bladder is minimally distended.

Portal vein and CBD are normal in course and calibre.

Visualised part of pancreas appears normal in size and echotexture. No evidence of duct dilatation or parenchymal calcification seen.

Spleen is normal in size (11.5cm) and echotexture. No focal lesion is seen in the spleen.

Both the kidneys are normal in size, shape and echotexture. Cortico-medullary differentiation is maintained. No evidence of calculus or hydronephrosis on either side.

Right kidney measures 8.9 x 4.2 cm.

Left kidney measures 10.6 x 4.9 cm.

Urinary bladder is well distended and appears normal. No evidence of intra-luminal calculus or mass lesion.

Prostate appears normal in size and echotexture. It measures 2.5 x 3.2x 3.0 cm corresponding to

There is no free fluid in abdomen and pelvis.

IMPRESSION

·Grade I fatty liver.



Dr.Priya Vinod Phayde MBBS, DMRE

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Ref. Doctor : self Facility : SEVENHILLS HOSPITAL,

Address : ROOM NO. 114, TRIMURTI MUMBAI

CHWL, SHIVAJI NAGAR, NEAR Mobile : 9967646952

SHIVALYA MANDIR,, Malad East, Mumbai, Maharastra, 400097

RegNo: 2020/11/6493

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Result

Ref. Doctor **Mobile No** : self : 9967646952

DOB : 15/08/1987

Unit

Facility : SEVENHILLS HOSPITAL, MUMBAI

Biological Reference Interval

IMMUNOLOGY

| Sample No : 00338294C | Collection Date : 15/06/24 10 | 0:39 Ack Date : 15/06/2024 10:59 | Report Date : | 15/06/24 13:49 |
|---------------------------|-------------------------------|--|---------------|----------------|
| ACID PHOSPHATASE -TO | <u>ral</u> | | | |
| Comment | | OUTSOURCE DONE, FOR REPORT PLS FOLLOWUP WITH LAB(L2B4) | | |
| FREE TFT (FT3,FT4,TSH B | Y CLIA) | | | |
| Free T3 - SERUM | | 3.2 | pg/ml | 2.00 - 4.40 |
| Free T4 - SERUM | | 1.37 | ng/dl | 0.93 - 1.70 |
| TSH - SERUM Method - CLIA | | 1.97 | uIU/ml | 0.40 - 4.50 |

Reference Ranges (TSH) Pregnancy:

1st Trimester: 0.1 - 2.5 2nd Trimester: 0.2 - 3.0 3rd Trimester: 0.3 - 3.0

Reference:

Episode

Test Name

1. Clinical Chemistry and Molecular Diagnostics, Tietz Fundamentals, 7th Edition & Endocronology Guideliens

Interpretation :-

It is recommended that the following potential sources of variation should be considered while interpreting thyroid hormone results:

- 1. Thyroid hormones undergo rhythmic variation within the body this is called circadian variation in TSH secretion: Peak levels are seen between 2-4 am. Minimum levels seen between 6-10 am. This variation may be as much as 50% thus, influence of sampling time needs to be considered for clinical interpretation.
- 2. Circulating forms of T3 and T4 are mostly reversibly bound with Thyroxine binding globulins (TBG), and to a lesser extent with albumin and Thyroid binding PreAlbumin. Thus the conditions in which TBG and protein levels alter such as chronic liver disorders, pregnancy, excess of estrogens, androgens, anabolic steroids and glucocorticoids may cause misleading total T3, total T4 and TSH interpretations.

Patient Name : Mr. RAJESH JADHAV : 36 Year(s) / Male Age/Sex

UHID : SHHM.97222 : 15/06/2024 10:34 **Order Date** : OP

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3. Total T3 and T4 levels are seen to have physiological rise during pregnancy and in patients on steroid treatment.

4. T4 may be normal the presence of hyperthyroidism under the following conditions: T3 thyrotoxicosis, Hypoproteinemia related reduced binding, during intake of certain drugs (eg Phenytoin, Salicylates etc)

5. Neonates and infants have higher levels of T4 due to increased concentration of TBG

- 6. TSH levels may be normal in central hypothyroidism, recent rapid correction of hypothyroidism or hyperthyroidism, pregnancy, phenytoin therapy etc.
- 7. TSH values of <0.03 uIU/mL must be clinically correlated to evaluate the presence of a rare TSH variant in certain individuals which is undetectable by conventional methods.
- 8. Presence of Autoimmune disorders may lead to spurious results of thyroid hormones
- 9. Various drugs can lead to interference in test results.
- 10. It is recommended that evaluation of unbound fractions, that is free T3 (fT3) and free T4 (fT4) for clinic-pathologic correlation, as these are the metabolically active forms.

| PSA -TOTAL-SERUM Method - (Serum, ECLIA) | | | |
|---|------|-------|-------------|
| PSA- Prostate Specific Antigen - SERUM | 0.51 | ng/ml | 0.00 - 4.00 |

Biological Reference Interval :-Conventional for all ages: <=4

60 - 69 yrs: 0 - 4.5

Episode

Note: Change in method and Reference range

INTERPRETATION:

Prostate-specific antigen (PSA) is a glycoprotein that is produced by the prostate gland, the lining of the urethra, and the bulbourethral gland. PSA exists in serum mainly in two forms, complexed to alpha-1-anti-chymotrypsin (PSA-ACT complex) and unbound (free PSA). Increases in prostatic glandular size and tissue damage caused by benign prostatic hypertrophy, prostatitis, or prostate cancer may increase circulating PSA levels. Transient increase in PSA can also be seen following per rectal digital or sonological examinations.

NOTE:

Patients on Biotin supplement may have interference in some immunoassays. With individuals taking high dose Biotin (more than 5 mg per day) supplements, at least 8-hour wait time before blood draw is recommended. Ref: Arch Pathol Lab Med—Vol 141 November 2017

| Ref. Archi Patriol Lab Med—vol 141, November 2017 | | | | |
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Patient Name : Mr. RAJESH JADHAV Age/Sex : 36 Year(s) / Male

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| Vitamin D3 - SERUM Method - CLIA | 13.06 | ng/ml | DEFICIENCY:- < 10 MODERATE INSUFFICIENCY:- 11 - 20 MILD INSUFFICIENCY:- 21 - 25 SUFFICIENCY:- 26 - 70 TOXICITY:- > 70 |
|-----------------------------------|-------|-------|---|
| VITAMIN D -TOTAL(25 HYDROXY) | | | |

Interpretation :-

Vitamin D is a lipid-soluble steroid hormone that is produced in the skin through the action of sunlight or is obtained from dietary sources The role of vitamin D in maintaining homeostasis of calcium and phosphorus is well established.

The assay measures both D2 (Ergocalciferol) and D3 (Cholecalciferol) metabolites of vitamin D. 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)

The reference ranges discussed in the preceding are related to total 25-OHD; as long as the combined total is 30 ng/mL or more, the patient has sufficient vitamin D. Levels needed to prevent rickets and osteomalacia (15 ng/mL) are lower than those that dramatically suppress parathyroid hormone levels (20–30 ng/mL). In turn, those levels are lower than levels needed to optimize intestinal calcium absorption (34 ng/mL). Neuromuscular peak performance is associated with levels approximately 38 ng/mL.

| Vitamin B12 - SERUM Method - CLIA | 191.7 ▼ (L) | pg/ml | 211.00 - 911.00 |
|------------------------------------|--------------------|-------|-----------------|
| <u>Vitamin B12 - SERUM</u> | | | |

Interpretation :-

Vitamin B12 is a coenzyme that is involved in two very important metabolic functions vital to normal cell growth and DNA synthesis: 1) the synthesis of methionine,

and 2) the conversion of methylmalonyl CoA to succinyl CoA. Deficiency of this vitamin can lead to megaloblastic anemia and ultimately to severe neurological problems. Also causes macrocytic anemia, glossitis, peripheral

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neuropathy, weakness, hyperreflexia, ataxia, loss of proprioception, poor coordination, and affective behavioral changes. A significant increase in RBC MCV may be an important indicator of vitamin B12 deficiency.

Patients taking vitamin B12 supplementation may have misleading results. A normal serum concentration of B12 does not rule out tissue deficiency of vitamin B12. The most sensitive test for B12 deficiency at the cellular level is the assay for MMA. If clinical symptoms suggest deficiency, measurement of MMA and homocysteine should be considered, even if serum B12 concerations are normal.

- End of Report

Dr.Ritesh Kharche MD, PGD-HM

Consultant Pathologist and Director of

Laboratory Services RegNo: 2006/03/1680 Dr.Nipa Dhorda

MD Pathologist

RegNo: 91821



DIAGNOSTICS REPORT

Patient Name

: Mr. RAJESH JADHAV

Age/Sex

: 36 Year(s)/Male : SHHM.97222

UHID

· 5ΠΠΙΝΙ

Ref. Doctor Address

: self

: ROOM NO. 114, TRIMURTI

CHWL, SHIVAJI NAGAR, NEAR SHIVALYA MANDIR,, Malad

East, Mumbai, Maharastra, 400097

Order Date : 15/06/2024 10:34

Report Date : 17/06/2024 11:44

Facility : SEVENHILLS HOSPITAL,

MUMBAI

Mobile : 9967646952

X RAY CHEST PA VIEW

Both lungs are clear.

The frontal cardiac dimensions are normal.

The pleural spaces are clear.

Both hilar shadows are normal in position and density.

No diaphragmatic abnormality is seen.

The soft tissues and bony thorax are normal.

IMPRESSION: No pleuroparenchymal lesion is seen.

Dr.Bhujang Pai MBBS,MD

Consultant RegNo: 49380