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Visit ID	**: MBAR32912**	Registration	: 09/Jan/2023 04:20PM
UHID/MR No	: ABAR.0000032900	Collected	: 09/Jan/2023 04:34PM
Patient Name	**: Mr.VIPIN KUMAR**	Received	: 09/Jan/2023 04:36PM
Age/Gender	: 32 Y 0 M 0 D /M	Reported	: 09/Jan/2023 05:15PM
Ref Doctor	: Dr.NITIN AGARWAL	Status	: Final Report
Client Name	: MODERN PATH SERVICES, BARELLY	Client Code	: 2423
Client Add	: 240,Sanjay Nagar Bareilly (UP)	Barcode No	: A3296247

DEPARTMENT OF HORMONE ASSAYS

Test Name	Result	Unit	Bio. Ref. Range	Method
25 HYDROXY VITAMIN D				
Sample Type : SERUM				
VITAMIN D	5.84	ng/ml	30-100	CLIA

INTERPRETATION:

LEVEL	REFERENCE RANGE
Deficiency (serious deficient)	< 10 ng/ml
Insufficiency (Deficient)	10-30 ng/ml
Sufficient (adequate)	30-100 ng/ml
Toxicity	> 100 ng/ml

DECREASED LEVELS:

-Deficiency in children causes Rickets and in adults leads to Osteomalacia. It can also lead to Hypocalcemia and Tetany.
-Inadequate exposure to sunlight.
-Dietary deficiency.
-Vitamin D malabsorption.
-Severe Hepatocellular disease.
-Drugs like Anticonvulsants.
-Nephrotic syndrome.

INCREASED LEVELS:

-Vitamin D intoxication.

COMMENTS:

-Vitamin D (Cholecalciferol) promotes absorption of calcium and phosphorus and mineralization of bones and teeth. 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 Dihydronxy vitamin D (5-8 hrs).
-The assay measures D3 (Cholecaciferol) 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.
-This is the recommended test for evaluation of vitamin D intoxication.

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DEPARTMENT OF HORMONE ASSAYS

Test Name	Result	Unit	Bio. Ref. Range	Method
THYROID PROFILE (T3,T4,ULTRASENSITIVE TSH)				
Sample Type : SERUM				
T3	1.00	ng/ml	0.61-1.81	CLIA
T4	6.9	ug/dl	5.01-12.45	CLIA
Ultrasensitive TSH	1.494	uIU/mL	0.55-4.78	CLIA

INTERPRETATION:

1. Serum T3, T4 and TSH are the measurements form three components of thyroid screening panel and are useful in diagnosing various disorders of thyroid gland function.
2. Primary hyperthyroidism is accompanied by elevated serum T3 and T4 values along with depressed TSH levels.
3. Primary hypothyroidism is accompanied by depressed serum T3 and T4 values and elevated serum TSH levels.
4. Normal T4 levels accompanied by high T3 levels are seen in patients with T3 thyrotoxicosis. Slightly elevated T3 levels may be found in pregnancy and in estrogen therapy while depressed levels may be encountered in severe illness, malnutrition, renal failure and during therapy with drugs like propanolol and propylthiouracil.
5. Although elevated TSH levels are nearly always indicative of primary hypothyroidism, rarely they can result from TSH secreting pituitary tumors (secondary hyperthyroidism).
6. Low levels of Thyroid hormones (T3, T4 & FT3, FT4) are seen in cases of primary, secondary and tertiary hypothyroidism and sometimes in non-thyroidal illness also.
7. Increased levels are found in Grave's disease, hyperthyroidism and thyroid hormone resistance.
8. TSH levels are raised in primary hypothyroidism and are low in hyperthyroidism and secondary hypothyroidism.
9. **REFERENCE RANGE:**

PREGNANCY	Ultrasensitive TSH in uIU/mL
1st Trimester	0.100 - 2.500
2nd Trimester	0.200 - 3.000
3rd Trimester	0.300 - 3.000

(Reference range recommended by the American Thyroid Association)

Comments :

1. During pregnancy, Free thyroid profile (FT3, FT4 & Ultra-TSH) is recommended.
2. TSH levels are subject to circadian variation, reaches peak levels between 2-4 AM and at a minimum between 6-10 PM. The variation of the day has influence on the measured serum TSH concentrations.

*** End Of Report ***

Dr. Miti Gupta
DNB ; MD [Pathology]

A Venture of Apple Cardiac Care
A-3, Ekta Nagar, Stadium Road,
(Opp. Care Hospital),
Bareilly - 243 122 (U.P.) India
Tel. : 07599031977, 09458888448

APPLE PATHOLOGY
TRUSTED RESULT

Reg.NO.	: 142	DATE	: **09/01/2023**
NAME	: **Mr. VIPIN KUMAR GANGWAR**	AGE	: 32 Yrs.
REFERRED BY	: Dr.Nitin Agarwal (D M)	SEX	: MALE
SAMPLE	: BLOOD		

TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE
	HAEMATOLOGY		
COMPLETE BLOOD COUNT (CBC)			
HAEMOGLOBIN	13.1	gm/dl	12.0-18.0
TOTAL LEUCOCYTE COUNT	7,300	/cumm	4,000-11,000
DIFFERENTIAL LEUCOCYTE COUNT(DLC)			
Neutrophils	70	%	40-75
Lymphocytes	28	%	20-45
Eosinophils	02	%	01-08
TOTAL R.B.C. COUNT	3.64	million/cumm	3.5-6.5
P.C.V./ Haematocrit value	38.6	%	35-54
M C V	**106.0**	fL	76-96
M C H	**36.0**	pg	27.00-32.00
M C H C	33.9	g/dl	30.50-34.50
PLATELET COUNT	2.50	lacs/mm3	1.50 - 4.50
E.S.R. (Westergren Method)	13	mm/1st hr.	0 - 20
GLYCOSYLATED HAEMOGLOBIN	5.4		

EXPECTED RESULTS :

Non diabetic patients	: 4.0% to 6.0%
Good Control	: 6.0% to 7.0%
Fair Control	: 7.0% to -8%
Poor Control	: Above 8%

***ADA: American Diabetes Association**

The glycosylated hemoglobin assay has been validated as a reliable indicator of mean blood glucose levels for a period of 8-12 week period prior to HBA1C determination.ADA recommends the testing twice a year in patients with stable blood glucose, and quarterly, if treatment changes, or if blood glucose levels are unstable.

METHOD : ADVANCED IMMUNO ASSAY.

BIOCHEMISTRY

Report is not valid for medicolegal purpose

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TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE
BLOOD SUGAR F.	70	mg/dl	60-100
Gamma Glutamyl Transferase (GGT)	19	U/L	7-32
SERUM CREATININE	1.0	mg/dL.	0.5-1.4
BLOOD UREA NITROGEN	18	mg/dL.	5 - 25
URIC ACID	6.8	mg/dl	3.5-8.0

CLINICAL SIGNIFICANCE:

Analysis of synovial fluid plays a major role in the diagnosis of joint disease.

SERUM SODIUM (Na)	**133**	m Eq/litre.	135 - 155
SERUM POTASSIUM (K)	4.7	m Eq/litre.	3.5 - 5.5
SERUM CALCIUM	9.6	mg/dl	8.5 - 10.5

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TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE
LIVER PROFILE			
SERUM BILIRUBIN			
TOTAL	0.7	mg/dL	0.3-1.2
DIRECT	0.4	mg/dL	0.2-0.6
INDIRECT	0.3	mg/dL	0.1-0.4
SERUM PROTEINS			
Total Proteins	7.1	Gm/dL	6.4 - 8.3
Albumin	4.1	Gm/dL	3.5 - 5.5
Globulin	3	Gm/dL	2.3 - 3.5
A : G Ratio	1.37		0.0-2.0
SGOT	**72**	IU/L	0-40
SGPT	**69**	IU/L	0-40
SERUM ALK.PHOSPHATASE	74	IU/L	00-115

NORMAL RANGE : BILIRUBIN TOTAL
Premature infants. 0 to 1 day: <8 mg/dL **Premature infants**. 1 to 2 days: <12 mg/dL **Adults**: 0.3-1 mg/dL.
Premature infants. 3 to 5 days: <16 mg/dL **Neonates, 0 to 1 day:** 1.4-8.7 mg/dL
Neonates, 1 to 2 days: 3.4-11.5 mg/dL **Neonates, 3 to 5 days:** 1.5-12 mg/dL **Children 6 days to 18 years**: 0.3-1.2 mg/dL
COMMENTS–
Total and direct bilirubin determination in serum is used for the diagnosis,differentiation and follow -up of jaundice.Elevation of SGPT is found in liver and kidney diseases such as infectious or toxic hepatitis,IM and cirrhosis.Organs rich in SGOT are heart ,liver and skeletal muscles. When any of these organs are damaged,the serum SGOT level rises in proportion to the severity of damage.Elevation of Alkaline Phosphatase in serum or plasma is found in hepatitis ,biliary obstructions,hyperparathyroidism,steatorrhea and bone diseases.

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TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE
LIPID PROFILE			
SERUM CHOLESTEROL	145	mg/dL.	130 - 200
SERUM TRIGLYCERIDE	88	mg/dl.	30 - 160
HDL CHOLESTEROL	55	mg/dL.	30-70
VLDL CHOLESTEROL	17.6	mg/dL.	15 - 40
LDL CHOLESTEROL	72.40	mg/dL.	00-130
CHOL/HDL CHOLESTEROL RATIO	2.64	mg/dl	
LDL/HDL CHOLESTEROL RATIO	1.32	mg/dl	

INTERPRETATION

TRIGLYCERIDE level > 250mg/dL is associated with an approximately 2-fold greater risk of coronary vascular disease. Elevation of triglycerides can be seen with obesity, medication, fast less than 12 hrs., alcohol intake, diabetes melitus,and pancreatitis.
CHOLESTEROL, its fractions and triglycerides are the important plasma lipids indefining cardiovascular risk factors and in the managment of cardiovascular disease.Highest acceptable and optimum values of cholesterol values of cholesterol vary with age. Values above 220 mgm/dl are associated with increased risk of CHD regardless of HDL & LDL values.
HDL-CHOLESTEROL level <35 mg/dL is associated with an increased risk of coronary vascular disease even in the face of desirable levels of cholesterol and LDL - cholesterol.
LDL - CHOLESTEROL& TOTAL CHOLESTEROL levels can be strikingly altered by thyroid, renal and liver disease as well as hereditary factors.Based on total cholesterol, LDL- cholesterol, and total cholesterol/HDL - cholesterol ratio, patients may be divided into the three risk categories.

HAEMATOLOGY

BLOOD GROUP

Blood Group	O
Rh	POSITIVE

BIOCHEMICAL

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TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE
Prostatic Specific Antigen	2.1	ng/ml	0-4

Prostatic Specific Antigen (P.S.A)

Comment : The fact of PSA is unique to prostate tissue makes it a suitable marker for monitoring men with cancer of the prostate. PSA is also useful for determining possible recurrence after therapy. Measurement of serum PSA levels is not recommended as a screening procedure for the diagnosis of cancer because elevated PSA levels also are observed in patients with bening prostatic hypertrophy.

* Quality controlled report with external quality assurance

URINE EXAMINATION

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TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE
URINE EXAMINATION REPORT			
PHYSICAL EXAMINATION			
TRANSPARENCY			
Volume	25	ml	
Colour	Light Yellow		
Appearence	NIL		Nil
Odour	NIL		
Sediments	Nil		
Specific Gravity	1.015		1.015-1.025
Reaction	NIL		
BIOCHEMICAL EXAMINATION			
UROBILINOGEN	Nil		NIL
BILIRUBIN	Nil		NEGATIVE
URINE KETONE	Nil		NEGATIVE
Sugar	Nil		Nil
Albumin	Nil		Nil
Phosphates	NIL		Nil
MICROSCOPIC EXAMINATION			
Red Blood Cells	Nil	/H.P.F.	
Pus Cells	1-2	/H.P.F.	
Epithelial Cells	0-1	/H.P.F.	
Crystals	NIL		NIL
Casts	Nil	/H.P.F.	
DEPOSITS	NIL		

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TEST NAME	RESULTS	UNITS	BIOLOGICAL REF. RANGE

--{End of Report}--

Shweta

Dr. Shweta Agarwal, M.D.
(Pathologist)

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