40181427385

KAMAL MALU
B-101-Aakash Ever Green Appt Vesu
Tel No : 9978043922
PID NO: P40180172696
Age: 53 Year(s) Sex: Male

Reference:
Sample Collected At:
Home Service
HOME SERVICE ,SURAT.

VID: 40181427385
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03/01/2019 10:52 AM
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03/01/2019 04:47 PM

Investigation	Observed Value	Unit	Biological Reference Interval
Erythrocytes			
Haemoglobin (Hb)	**11.3**	gm/dL	13.5-18
Erythrocyte (RBC) Count	5.79	mill/cu.mm	4.7-6.0
PCV (Packed Cell Volume)	**36.9**	%	42-52
MCV (Mean Corpuscular Volume)	**63.7**	fL	78-100
MCH (Mean Corpuscular Hb)	**19.5**	pg	27-31
MCHC (Mean Corpuscular Hb Concn.)	**30.6**	g/dL	32-36
RDW (Red Cell Distribution Width)	**15.4**	%	11.5-14.0
RBC Morphology			
Hypochromia	++		
Microcytosis	++		
Anisocytosis	+		
Others	Target cells (Few)		
Leucocytes			
Total Leucocytes (WBC) count	10,100	cells/cu.mm	4000-10500
Absolute Neutrophils Count	**7070**	/c.mm	2000-7000
Absolute Lymphocyte Count	1919	/c.mm	1000-3000
Absolute Monocyte Count	909	/c.mm	200-1000
Absolute Eosinophil Count	202	/c.mm	20-500
Absolute Basophil Count	0	/c.mm	20-100
Neutrophils	70	%	40-80
Lymphocytes	**19**	%	20-40
Monocytes	9	%	2.0-10
Eosinophils	2	%	1-6
Basophils	0	%	0-2
Platelets			
Platelet count	**553**	X 10^3/µl	150-450
MPV (Mean Platelet Volume)	7.2	fL	6-9.5
Pathologist Remark	Platelet increased on smear		
Malaria Parasite examination on thick Smear	Not Detected		Not Detected

EDTA Whole Blood - Tests done on Automated Five Part Cell Counter. (WBC, RBC, MCV & Platelet count by impedance method, Hb by Cyanmethemoglobin method by Spectrophometey, WBC differential by Microscopy & other parameters calculated) All Haemograms are reviewed & confirmed microscopically.

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Investigation	Observed Value	Unit	Biological Reference Interval
ESR - Erythrocyte Sedimentation Rate (EDTA Whole Blood)	**31**	mm/hr	0-15 Reference: Wallach Interpretation of Diagnostic Tests, 9th Edition.

Method: Automated Westergren

Interpretation:

1. It indicates presence and intensity of an inflammatory process, never diagnostic of a specific disease. Changes are more significant than a single abnormal test.
2. It is a prognostic test and used to monitor the course or response to treatment of diseases like tuberculosis, bacterial endocarditis, acute rheumatic fever, rheumatoid arthritis, SLE, Hodgkins disease, temporal arteritis, polymyalgia rheumatica.
3. It is also increased in pregnancy, multiple myeloma, menstruation, and hypothyroidism.

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Investigation	Observed Value	Unit	Biological Reference Interval
Glucose fasting (Plasma-F,Hexokinase)	**163**	mg/dL	Normal: 70-100 Impaired Tolerance: 100-125 Diabetes mellitus: >= 126 (on more than one occassion) (American diabetes association guidelines 2018)
SGPT (ALT) (Serum,UV Absorbance)	18	U/L	< 41 Reference: Kit Insert
Creatinine (Serum,Jaffe)	0.85	mg/dL	0.70-1.2 Reference: Kit Insert.
Uric Acid (Serum,Uricase)	4.0	mg/dL	3.4-7.0 Reference: Kit Insert
Calcium (Serum,NM-BAPTA)	8.9	mg/dL	8.6-10 Reference: Kit Insert.
Vitamin B12 level (Serum,ECLIA)	**161.1**	pg/mL	197-771

Interpretation :

1. Vit B12 levels are decreased in megaloblastic anemia, partial/total gastrectomy, pernicious anemia, peripheral neuropathies, chronic alcoholism, senile dementia, and treated epilepsy.
2. An associated increase in homocysteine levels is an independent risk marker for cardiovascular disease and deep vein thrombosis.
3. HoloTranscobalamin II levels are a more accurate marker of active VitB12 component.

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Investigation	Observed Value	Unit	Biological Reference Interval
25 Hydroxy (OH) Vit D (Serum,ECLIA)	**5.56**	ng/mL	Deficiency: < 10 Insufficiency: 10-30 Sufficiency: 30-100 Toxicity: > 100

Interpretation :

1. Vitamin D is a fat soluble vitamin and exists in two main forms as cholecalciferol(vitamin D3) which is synthesized in skin from 7-dehydrocholesterol in response to sunlight exposure & Ergocalciferol(vitamin D2) present mainly in dietary sources.Both cholecalciferol & Ergocalciferol are converted to 25(OH)vitamin D in liver.
2. Testing for 25(OH)vitamin D is recommended as it is the best indicator of vitamin D nutritional status as obtained from sunlight exposure & dietary intake. For diagnosis of vitamin D deficiency it is recommended to have clinical correlation with serum 25(OH)vitamin D, serum calcium, serum PTH & serum alkaline phosphatase.
3. During monitoring of oral vitamin D therapy- suggested testing of serum 25(OH)vitamin D is after 12 weeks or 3 mths of treatment. However, the required dosage of vitamin D supplements & time to achieve sufficient vitamin D levels show significant seasonal(especially winter) & individual variability depending on age, body fat, sun exposure, physical activity ,genetic factors(especially variable vitamin D receptor responses), associated liver or renal disease, malabsorption syndromes and calcium or magnesium deficiency influencing the vitamin D metabolism Vitamin D toxicity is known but very rare.kindly correlate clinically, repeat with fresh sample if indicated.

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Investigation	Observed Value	Unit	Biological Reference Interval
TSH by ECLIA (Serum,ECLIA)	2.93	µIU/mL	0.45-4.5

Interpretation :

1. TSH results between 4.5 to 15 show considerable physiologic & seasonal variation, suggest clinical correlation or repeat testing with fresh sample .
2. TSH results between 0.1 to 0.45 require correlation with patient age & clinical symptoms. As with increasing age, there are marked changes in thyroid hormone production, metabolism & its actions resulting in an increased prevalence of subclinical thyroid disease.
3. TSH values may be transiently altered because of non thyroidal illness like severe infections,liver disease, renal and heart failure,severe burns, trauma and surgery etc .
4. Drugs that decrease TSH values e.g:L-dopa,Glucocorticoid Drugs that increase TSH values e.g Iodine,Lithium,Amiodarone.

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General Profile Plus - D (Maxi)
HbA1C- Glycated Haemoglobin, blood by HPLC method
(EDTA Whole Blood)

Investigation	Observed Value	Unit	Biological Reference Interval
HbA1C- Glycated Haemoglobin (HPLC)	**9.5**	%	Non-diabetic: <= 5.6 Pre-diabetic: 5.7-6.4 Diabetic: >= 6.5 (American diabetes association guidelines 2018)
Estimated Average Glucose (eAG)	225.95	mg/dL	

Interpretation & Remark:

1. HbA1c is used for monitoring diabetic control. It reflects the estimated average glucose (eAG).
2. HbA1c has been endorsed by clinical groups & ADA (American Diabetes Association) guidelines 2017, for diagnosis of diabetes using a cut-off point of 6.5%.
3. Trends in HbA1c are a better indicator of diabetic control than a solitary test.
4. Low glycated haemoglobin(below 4%) in a non-diabetic individual are often associated with systemic inflammatory diseases, chronic anaemia(especially severe iron deficiency & haemolytic), chronic renal failure and liver diseases. Clinical correlation suggested.
5. To estimate the eAG from the HbA1C value, the following equation is used: eAG(mg/dl) = 28.7*A1c-46.7
6. Interference of Haemoglobinopathies in HbA1c estimation.
   A. For HbF > 25%, an alternate platform (Fructosamine) is recommended for testing of HbA1c.
   B. Homozygous hemoglobinopathy is detected, fructosamine is recommended for monitoring diabetic status
   C. Heterozygous state detected (D10/ turbo is corrected for HbS and HbC trait).
7. In known diabetic patients, following values can be considered as a tool for monitoring the glycemic control. Excellent Control - 6 to 7 %, Fair to Good Control - 7 to 8 %, Unsatisfactory Control - 8 to 10 % and Poor Control - More than 10 % .

Note : Hemoglobin electrophoresis (HPLC method) is recommended for detecting hemoglobinopathy.

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Investigation	Observed Value	Unit	Biological Reference Interval
Lipid Profile-Mini (Serum,Enzymatic)			
Cholesterol-Total	157	mg/dL	Desirable: < 200 Borderline High: 200-239 High: >= 240
Triglycerides level	89	mg/dL	Normal: < 150 Borderline High: 150-199 High: 200-499 Very High: >= 500 Reference: recomended NCEP Guidelines
HDL Cholesterol	**32.4**	mg/dL	Major risk factor for heart disease: < 40 Negative risk factor for heart disease: >= 60
Non HDL Cholesterol (Calculated)	124.60	mg/dL	Optimal: < 130 Desirable: 130-159 Borderline high: 159-189 High: 189-220 Very High: >= 220
LDL Cholesterol (Calculated)	**106.8**	mg/dL	Optimal: < 100 Near Optimal: 100-129 Borderline high: 130-159 High: 160-189 Very High: >= 190
VLDL Cholesterol (Calculated)	17.8	mg/dL	6-38
LDL/HDL RATIO	3.3		2.5-3.5
CHOL/HDL RATIO	4.85		3.5-5

Note: Reference Interval as per National Cholesterol Education Program (NCEP) Adult Treatment Panel III Report.

VLDL,CHOL/HDL RATIO,LDL/HDL RATIO,LDL Cholesterol,serum,Non HDL Colesterol are calculated parameters

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General Profile Plus - D (Maxi)
Routine Examination Urine

Investigation	Observed Value	Unit	Biological Reference Interval
General Examination			
Colour	Pale Yellow		Pale Yellow
Transparency (Appearance)	**Sl.Turbid**		Clear
Reaction (pH)	7		4.5-8
Specific gravity	1.015		1.010-1.030
Chemical Examination			
Urine Glucose (sugar)	**Trace**		Absent
Bile pigments	Absent		Absent
Urine Protein (Albumin)	**Present(++)**		Absent
Urine Ketones (Acetone)	Absent		Absent
Microscopic Examination			
Pus cells (WBCs)	2-3	/hpf	0-5
Red blood cells	**10-15**	/hpf	Absent
Epithelial cells	Occasional	/hpf	0-4
Crystals	Absent		Absent
Cast	Absent		Absent

Urine examination by Microscopy and Automated Dipstick Method

-- End of Report --

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