GENERAL DIAGNOSTICS
PreventiNe Life Care (P) Ltd.
Plot-6, Sector - 24, Navi Mumbai
Maharashtra, India. Pin - 400705
Tel: +91-22-40450000

0000002873284

Name:	Mrs. Tannu Hodekar	**Age/Gender:**	27 Year(s) 0 Months(s) 0 Day(s)/Female
Referred By:	SELF	**Client Name:**	GEO MEDCARE HOSPITAL
Collection Date:	12-07-2021 11:41:00	**Report Release Date:**	13-07-2021 00:27:10

HOMA-IR (Using Insulin)

Sr.No	Investigation	Observed Value	Reference Range	Unit
1	Glucose (Fasting) Serum/Fluoride Plasma, Method: Hexokinase	81.5	Normal : >70 - 100 Pre - Diabetes: 101 - 126 Diabetes: > 126	mg/dL
2	Insulin Fasting Serum/Fluoride Plasma, Method: CLIA	7.89	0.2-25.0	mIU/L
3	Insulin Sensitivity Serum/Fluoride Plasma, Method: Calculated	100.3		%
4	Beta cell Function Serum/Fluoride Plasma, Method: Calculated	118.2		%
5	HOMA Index Serum/Fluoride Plasma, Method: Calculated	1.59	> 2.5 cut off indicates insulin resistance	

Interpretation

Insulin resistance (IR) and the metabolic abnormalities related to IR have been associated with metabolic syndrome (MS), type 2 diabetes mellitus (T2DM) and cardiovascular disease (CVD) in adults and in the elderly. Metabolic syndrome is now increasingly being recognized in children and adolescents. IR is typically defined as decreased sensitivity or responsiveness to the metabolic actions of insulin, such as insulin-mediated glucose disposal and inhibition of hepatic glucose production. There are various tools used for quantifying insulin sensitivity and resistance directly (hyperinsulinemic euglycemic glucose clamping and insulin suppression tests) and indirectly [frequently sampled intravenous glucose tolerance test, oral glucose tolerance test, meal tolerance test, and homeostasis model of assessment-IR (HOMA)]. The utility of HOMA-IR in assessment of IR has been validated in children and adolescents. A HOMA-IR value of 2.5 is taken as an indicator of IR in adults, but the corresponding value in children and adolescents has not been established.

Test Interpretation: HOMA2-IR value of 2.5 is taken as an indicator of insulin resistance in adolescents & adults which provides maximum sensitivity & specificity in diagnosing metabolic syndrome in both genders & as per ATP III(Adult Treatment Panel) & IDF(International Diabetes Federation) criteria.

Insulin glucose HOMA model cannot be used in those taking exogenous insulin. Under such circumstances, the C peptide HOMA model which uses C peptide to reflect endogenous insulin secretions could be used. Also the HOMA-IR calculator accepts values in the following approved ranges only (plasma insulin <57.6 uU/ml & blood sugar fasting < 450 mg/dl). HOMA-IR calculation not possible if values are outside these ranges, clinical correlation suggested.

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CRM No :2873284
Sample Recd. Time: 12-07-2021 11:49
Report Time: 13-07-2021 00:27
Patient Name: Mrs. Tannu Hodekar
Patient ID: 2873284

Authorized Signatory
Dr. Dina Abhani
DCP, DNB (Pathology)

Authorized Signatory
Dr. Varsha Deshpande
DCP, DNB (Pathology)

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1	Insulin Fasting Serum, Method: CLIA	7.89	0.2-25.0	mIU/L

Interpretation

Insulin is a hormone that is produced and stored in the beta cells of the pancreas. Elevated insulin levels are seen with Acromegaly, Cushing syndrome, Use of drugs such as corticosteroids, levodopa, oral contraceptives, Fructose or galactose intolerance, Insulinomas, Obesity, Insulin resistance seen in type 2 diabetes and metabolic syndrome. Decreased insulin levels are seen with type 1 Diabetes, Hypopituitarism, Pancreatic diseases such as chronic pancreatitis (including cystic fibrosis) and pancreatic cancer.

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HOMA-IR (Using Insulin)

Sr.No	Investigation	Observed Value	Reference Range	Unit
1	Glucose (Fasting) Fluoride Plasma, Method: Hexokinase	81.5	Normal : >70 - 100 Pre - Diabetes: 101 - 126 Diabetes: > 126	mg/dL

Interpretation

Glucose is the primary energy source for the body's cells and the only energy source for the brain and nervous system.High levels of glucose most frequently indicate diabetes, but many other diseases and conditions can also cause elevated blood glucose. Hypoglycemia is 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).

End Of Report

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Authorized Signatory
Dr Anju Dhar
MD (Microbiologist)

Authorized Signatory
Dr. Varsha Deshpande
DCP, DNB (Pathology)

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