Dr. Vinay Chopra
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Chairman & Consultant Pathologist

Dr. Yugam Chopra
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CEO & Consultant Pathologist

TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

| | | | |
|---|---|---|---|
| **NAME** | **: Miss. RITU CHAHAL** | | |
| **AGE/ GENDER** | : 30 YRS/FEMALE | **PATIENT ID** | : 1535773 |
| **COLLECTED BY** | : | **REG. NO./LAB NO.** | **: 012407020034** |
| **REFERRED BY** | : | **REGISTRATION DATE** | : 02/Jul/2024 11:14 AM |
| **BARCODE NO.** | : 01512378 | **COLLECTION DATE** | : 02/Jul/2024 11:23AM |
| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 02/Jul/2024 12:17PM |
| **CLIENT ADDRESS** | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|

## CLINICAL CHEMISTRY/BIOCHEMISTRY

### GLUCOSE FASTING (F)

| | | | |
|---|---|---|---|
| GLUCOSE FASTING (F): PLASMA<br>*by GLUCOSE OXIDASE - PEROXIDASE (GOD-POD)* | 81.37 | mg/dL | NORMAL: < 100.0<br>PREDIABETIC: 100.0 - 125.0<br>DIABETIC: > 0R = 126.0 |

***INTERPRETATION***

**IN ACCORDANCE WITH AMERICAN DIABETES ASSOCIATION GUIDELINES:**

1. A fasting plasma glucose level below 100 mg/dl is considered normal.
2. A fasting plasma glucose level between 100 - 125 mg/dl is considered as glucose intolerant or prediabetic. A fasting and post-prandial blood test (after consumption of 75 gms of glucose) is recommended for all such patients.
3. A fasting plasma glucose level of above 125 mg/dl is highly suggestive of diabetic state. A repeat post-prandial is strongly recommended for all such patients. A fasting plasma glucose level in excess of 125 mg/dl on both occasions is confirmatory for diabetic state.

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| **CLIENT CODE.** | : KOS DIAGNOSTIC LAB | **REPORTING DATE** | : 02/Jul/2024 12:43PM |
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## LIVER FUNCTION TEST (COMPLETE)

| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| BILIRUBIN TOTAL: SERUM<br>*by DIAZOTIZATION, SPECTROPHOTOMETRY* | 0.52 | mg/dL | INFANT: 0.20 - 8.00<br>ADULT: 0.00 - 1.20 |
| BILIRUBIN DIRECT (CONJUGATED): SERUM<br>*by DIAZO MODIFIED, SPECTROPHOTOMETRY* | 0.16 | mg/dL | 0.00 - 0.40 |
| BILIRUBIN INDIRECT (UNCONJUGATED): SERUM<br>*by CALCULATED, SPECTROPHOTOMETRY* | 0.36 | mg/dL | 0.10 - 1.00 |
| SGOT/AST: SERUM<br>*by IFCC, WITHOUT PYRIDOXAL PHOSPHATE* | 22.2 | U/L | 7.00 - 45.00 |
| SGPT/ALT: SERUM<br>*by IFCC, WITHOUT PYRIDOXAL PHOSPHATE* | 21.3 | U/L | 0.00 - 49.00 |
| AST/ALT RATIO: SERUM<br>*by CALCULATED, SPECTROPHOTOMETRY* | 1.04 | RATIO | 0.00 - 46.00 |
| ALKALINE PHOSPHATASE: SERUM<br>*by PARA NITROPHENYL PHOSPHATASE BY AMINO METHYL PROPANOL* | 51.9 | U/L | 40.0 - 130.0 |
| GAMMA GLUTAMYL TRANSFERASE (GGT): SERUM<br>*by SZASZ, SPECTROPHTOMETRY* | 18.6 | U/L | 0.00 - 55.0 |
| TOTAL PROTEINS: SERUM<br>*by BIURET, SPECTROPHOTOMETRY* | 7.1 | gm/dL | 6.20 - 8.00 |
| ALBUMIN: SERUM<br>*by BROMOCRESOL GREEN* | 4.11 | gm/dL | 3.50 - 5.50 |
| GLOBULIN: SERUM<br>*by CALCULATED, SPECTROPHOTOMETRY* | 2.99 | gm/dL | 2.30 - 3.50 |
| A : G RATIO: SERUM<br>*by CALCULATED, SPECTROPHOTOMETRY* | 1.37 | RATIO | 1.00 - 2.00 |

***INTERPRETATION***

***NOTE***:- **To be correlated in individuals having SGOT and SGPT values higher than Normal Referance Range.**

**USE**:- Differential diagnosis of diseases of hepatobiliary system and pancreas.

**INCREASED:**

| | |
|---|---|
| DRUG HEPATOTOXICITY | > 2 |
| ALCOHOLIC HEPATITIS | > 2 (Highly Suggestive) |
| CIRRHOSIS | 1.4 - 2.0 |
| INTRAHEPATIC CHOLESTATIS | > 1.5 |

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| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|
| HEPATOCELLULAR CARCINOMA & CHRONIC HEPATITIS | > 1.3 (Slightly Increased) | | |

**DECREASED:**

1. Acute Hepatitis due to virus, drugs, toxins (with AST increased 3 to 10 times upper limit of normal)
2. Extra Hepatic cholestatis: 0.8 (normal or slightly decreased).

**PROGNOSTIC SIGNIFICANCE:**

| | |
|---|---|
| NORMAL | < 0.65 |
| GOOD PROGNOSTIC SIGN | 0.3 - 0.6 |
| POOR PROGNOSTIC SIGN | 1.2 - 1.6 |

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| Test Name | Value | Unit | Biological Reference interval |
|---|---|---|---|

## ENDOCRINOLOGY

### THYROID FUNCTION TEST: FREE

| | | | |
|---|---|---|---|
| FREE TRIIODOTHYRONINE (FT3): SERUM<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | 2.134 | pg/mL | 1.60 - 3.90 |
| FREE THYROXINE (FT4): SERUM<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | 0.857 | ng/dL | 0.70 - 1.50 |
| THYROID STIMULATING HORMONE (TSH): SERUM<br>*by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* | 3.808 | µIU/mL | 0.35 - 5.50 |

**3rd GENERATION, ULTRASENSITIVE**

***INTERPREATION:***

1. FT3 & FT4 are metabolic active form of thyroid harmones and correlate much better with clinical condition of the patient as compared to Total T4 levels. High FT3 & FT4 with normal TSH Levels and abnormal thyroid function (Total Thyroid) can occasionally be seen in cases of PERIPHERAL THYROID HARMONE RESISTANCE
2. TSH levels are subjected to circardian variation,reaching peak levels between 2-4 a.m and at a minimum between 6-10 pm. The variation is of the order of 50 %. Hence time of the day has influence on the measured serum TSH concentration.

**INCREASED TSH LEVELS:**

1. Primary hypothyroidism is accompanied by depressed serum FT3 & FT4 values and elevated serum TSH levels. Primary or untreated hypothyroidism may vary from 3 times to more than 100 times normal depending upon degree of hypofunction.
2. Hypothyroid patients receiving insufficient thyroid replacement therapy.
3. Hashimotos thyroiditis
4. DRUGS: Amphetamines, idonie containing agents & dopamine antagonist.
5. Neonatal period, increase in 1st 2-3 days of life due to post-natal surge

**DECREASED TSH LEVELS:**

1. Primary hyperthyroidism is accompanied by elevated serum FT3 & FT4 values along with depressed TSH levels.
1. Toxic multi-nodular goitre & Thyroiditis.
2. Over replacement of thyroid hormone in treatment of hypothyroidism.
3. Autonomously functioning Thyroid adenoma
4. Secondary pituatary or hypothalmic hypothyroidism
5. Acute psychiatric illness
6. Severe dehydration.
7. DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.
8. Pregnancy: 1st Trimester

**NOTE:**

*1. High FT3 levels accompanied by normal FT4 levels and depressed TSH levels may be seen T3 thyrotoxicosis, central hypothyroidism occurs due to pituitary or thalamic malfunction*
*2. Secondary & Tertiary hypothyroidism, this relatively rare but important condition is indicated by presence of low serum FT3 and FT4 levels, in conjugation with TSH levels that are paradoxically either low/normal or are not elevated to levels that are expected.*

*** End Of Report ***

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