



**ORIGINAL RESEARCH PAPER**

**Biochemistry**

**STUDY OF BIOCHEMICAL PARAMETRES IN NONCOVID PATIENTS IN 3RD WAVE OF COVID.**

**KEY WORDS:**

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**ABSTRACT**

We studied the concentration of biochemical markers in serum of outdoor patient (OPD) with presence of symptoms like fever, cough and cold in 3rd wave of covid. Many patients were diagnosed with viral fever. Their RTPCR test was negative. Patient complaint were not severe. We had analysed their blood urea, SGOT, SGPT, blood glucose, creatinine, alkaline phosphatase and bilirubin. Most of biochemical markers level are within normal limit, and it suggests that in non-covid patients having only viral fever there is no multiplication of virus in hepatic cells and also there is no damage to renal system.

**INTRODUCTION:**

A virus is a submicroscopic infectious agent that replicates only inside living cells of organisms [1].

Viruses are found in almost every ecosystem on the Earth and are the most numerous type of biological entity [2,3]. The most common cause of fever in India is viral. The causative organisms are like influenza virus and others.

The fever is associated with headache, cough, cold, bodyache. Physician should advise biochemical test to know the status of organ or severity of disease.

We had measured LFT parameters and Sr. creatinine and blood urea in such symptomatic patients in 3rd wave of covid in February and March 2022.

**MATERIAL AND METHOD**

**Preparation of blood sample :**

The blood sample of patients were collected at central clinical laboratory after they had attended respective OPD like Medicine or Pediatrics. Study was conducted from Feb 2022 to March 2022. Patients of age group from 10 to 80 years were selected who were not suffering from covid.

**Analysis of biochemical marker :**

The serum is separated from blood and analysis of concentration of biochemical markers in serum is carried.

The concentration of LFT parameters and Sr. creatinine and blood urea and blood glucose in some patients were determined on fully autoanalyser (Transasia 640 company of India).

**Statistical Analysis :**

The concentration of biochemical parameters were analysed and were compared to each other and it was to find out whether any significant change had occurred. The concentration of biochemical parameters in symptomatic patients are as follows:

Biochemical of patient B	Reference parametre	Sample of patient A	sample
1. Creatinine	0.7 -1.5 mg\dl	0.86 mg\dl	0.95 mg\dl
2. Blood urea	20-40 mg\dl	11.7 mg\dl	11.8 mg\dl
3. AST\SGOT	5-35 IU\L	39.6 IU\L	31.6 IU\L
4. ALT\SGPT	5-45 IU\L	27.1 IU\L	23.2 IU\L
5. Alkaline Phosphatase	25-90 IU\L	67 IU\L	114 IU\L

The blood glucose is done by GodPod method, enzymes were studied by kinetic method, blood urea by Berthlot

method, serum creatinine Jaffe's Principle. All tests were analysed by fully autoanalyser machine.

**OBSERVATION AND RESULT :**

In the symptomatic non-covid patients levels of most of the biochemical parameters like SGOT, SGPT and others were normal. On comparison of each patient's biochemical markers values it was found that there was no significant difference was observed. Most of the patients were cured by simple treatment.

**DISCUSSION :**

Many viruses can temporarily increase liver enzymes levels. These include rhinovirus (common cold) or EBV (Epstein Barr virus) the virus that causes mononucleosis (mono). It is observed that there is no significant change in biochemical parameters, it suggests that there was no inflammation in the hepatic cells, no damage seen in renal system of the patient. Because of improvement of patient's health it suggests that immunity power is good.

**CONCLUSION :**

In the 3rd wave of covid, patients who have fever or cold or cough or mix feature of symptoms, that is in non-covid patients whose RTPCR was negative their biochemical parameters were within normal limits i.e. there was neither replication of virus in hepatic cells nor any damage to the renal system by virus.

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