

74. **RARE MANIFESTATION OF DIABETES MELLITUS IN COVID-19 PATIENT: A CASE REPORT.**

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INTRODUCTION: Diabetes is an endocrinopathy and rare in the case of SARS-CoV-2, the virus primarily involves the lungs by its affinity to Angiotensin Converting enzyme(ACE-2) receptors, associated symptoms include Nausea, Vomiting, and Breathlessness. **CASE PRESENTATION:** We present the case of a 41-year-old male with pneumonia-like symptoms and a positive nasal swab RT-PCR test with Imaging studies highly suggestive of CO RADS-5 Progressive stage, the patient was immediately admitted to the Intensive care unit (ICU), and the treatment was started with Medical Oxygen, Intravenous Normal Saline Tablet Doxycycline, and Tablet Ivermectin as per the guidelines, he was admitted for 21 days. After 3 weeks the patient comes for a routine checkup and was found to have an elevated Fasting glucose level of 121 mg/dl (normal reference range 80-100mg/dl) further workup for diabetes revealed that he was a non-diabetic on the previous visit 2 months ago, he also had an increase in weight during this time. With the Body Mass Index(BMI) now being 30.2 from the previous 28.4 (Reference range >30 is obese), the pro-inflammatory cytokines like C-reactive protein were 111.6 (normal 0-6), and elevation in D-Dimer which is a fibrin degradation product was elevated to 1048ng/dl (normal range 0-500 ng/dl) other measures for the increase in blood sugar also showed elevation as seen in table 1. **DISCUSSION:** There have been many hypotheses to find a causal relationship between both Diabetes and COVID-19 like the use of Dexamethasone or that the virus produces proinflammatory cytokines like Interleukin-6(IL-6) that lead to impaired signaling and decreased lipolysis or that there is a direct action on the ACE 2 found in the pancreas by the virus and maybe the least looked upon factor being lockdown leading to sedentary life, no exercises and increase in consumption of fatty foods, whichever may be the case it could very well be a multifactorial cause with many of these ideas involved. **CONCLUSION:** In this case, the association may be with decreased physical activity and an increase in Lipolysis or the proinflammatory states as seen by the increase in the C-reactive protein and Interleukin-6 levels.

Table. Laboratory Values Before and After COVID-19.

| Parameter | Values before COVID | Values after COVID | Reference range |
|---------------------------|---------------------|--------------------|----------------------|
| Total WBC | 4900 | 11,400 | 4000-10000/cu.mm |
| Platelet count | 200000 | 450000 | 140000-440000/cu.m m |
| C-reactive protein | 1.55 | 111.6 | 0-6 |
| D-Dimer | 0.4 | 1048 | 0-500 ng/dl |
| Interleukin (IL-6) | - | 97.42 | <10 |
| Serum Cholesterol | 127 | 220 | 130-200mg/dl |
| Alanine transaminase | - | 54 | 6-45 |
| Serum Creatinine | - | 1.04 | 0.50-1.50 |
| Random blood sugar | 89 | 143 | 70-140mg/dl |
| HbA1C | - | 7.40 | 4.3-6.2 |
| Mean blood glucose | - | 174.30 | 70-100mg/dl |
| Fasting Blood sugar | 92 | 121 | <100mg/dl |
| Post Prandial Blood sugar | 120 | 159 | <140mg/dl |

Key words: Diabetes Mellitus; Endocrine Pancreas; SARS-Cov, D-Dimer; PCR; Reverse Transcriptase.