

Assessment of some Biochemical Parameters among Diabetic Covid-19 Patients in Al-Muthanna Province

A Thesis Submitted to the Council of College of Science / AlMuthanna University as Partial Fulfillment of the Requirements for the Degree of Master of Science in Chemistry

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B. Sc. 2011

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Abstract

Corona virus disease is a worldwide disease spread in the end of 2019 that affected the diabetic patients. This clinical study deals with laboratory tests and results for coronavirus patients with or without Type 2 diabetes mellitus. Subjects are 160 divided into 40 controls, 40 subjects have type 2 diabetes mellitus, and 80 subjects have Covid-19, where 40 subjects with Type2 diabetes mellitus and 40 subjects without diabetes, all Covid-19 subjects were hospitalized patients. During the period between September 2020 to March 2021 in Al-Muthanna governorate. The age range of all subjects male or female (≥ 45 years old). Blood samples were withdrawn after nearly 12 hours of overnight fasting to do the analysis of glucose, Renal function test, ALT, AST, Bilirubin, Ferritin, Albumin, CRP, WBC, Lymphocytes, HCT and Troponin. In this study, it was found that the level of glucose was high in patients with Covid-19 with or without diabetes, but it was higher in patients with diabetes, the same is shown for ferritin, C - reactive protein, LDH and WBC. The kidneys were also affected, since the level of urea and creatinine increased in patients with Covid-19 with or without diabetes. There was increased levels of liver enzymes (ALT, AST) but no change found in bilirubin level. There were a decrease in the level of albumin, lymphocyte and hematocrit for Covid-19 patients with diabetes. In contrast there is no change in Troponin level. Finally, coronavirus 2 infection might represent a worsening factor for patients with diabetes as a result of severe metabolic complications affected β -cell function.