

INTERNATIONAL SYMPOSIUM ON INFECTIOUS DISEASES AND VACCINES



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Comparative Analysis of COVID-19 Outcomes in Type 1 and 2 Type 2 Diabetes: A Three-Year Retrospective Study

Abstract:

Background and Objectives: This comprehensive retrospective study assesses COVID-19 outcomes in type 1 and type 2 diabetes patients across three years, focusing on how these outcomes varied with the evolving pandemic and changes in diabetes management. The study aims to determine if COVID-19 outcomes, including severity, ICU admission rates, duration of hospitalization, and mortality, are significantly different between these diabetic subtypes. **Materials and Methods:** The study analysed data from patients admitted to the Victor Babes Hospital for Infectious Diseases and Pulmonology with confirmed COVID-19 and pre-existing diabetes, from the years 2020, 2021, and 2022. **Results:** Among 486 patients (200 without diabetes, 62 with T1DM, 224 with T2DM), T2DM patients showed notably higher severity, with 33.5% experiencing severe cases, compared to 25.8% in T1DM. Mortality rates were 11.6% in T2DM and 8.1% in T1DM. T2DM patients had longer hospital stays (11.6 ± 7.0 days) compared to T1DM (9.1 ± 5.8 days) and were more likely to require ICU admission (OR: 2.24) and mechanical ventilation (OR: 2.46). Hyperglycaemia at admission was significantly higher in diabetic groups, particularly in T2DM (178.3 ± 34.7 mg/dL) compared to T1DM (164.8 ± 39.6 mg/dL). **Conclusions:** The study reveals a discernible difference in COVID-19 outcomes between T1DM and T2DM, with T2DM patients having longer hospital admissions, mechanical ventilation necessities, and mortality risks.

Keywords: Diabetes Mellitus; COVID-19; SARS-CoV-2.

Biography: Dr. Flavius Cioca is assistant professor for informatics and biostatistics at Timisoara “Victor Babes” University of Medicine and Pharmacy. He also works as an occupational medicine specialist for his private practice, Aptimed Clinic and at Timisoara Railway Hospital. Between 2020 and 2022 was the Executive Manager for Timis County Public Health Directorate and coordinated COVID-19 response in western Romania. Previously, he had different management roles for major players in Romanian Private Healthcare Sector, including MedLife and Regina Maria. Dr. Flavius Cioca began his activity working as a medical representative for CSC Pharmaceuticals and as a Sales Manager for Novo Nordisk.