



2ND WORLD CONGRESS OF GASTROENTEROLOGY & DIGESTIVE DISEASES



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Comparative Analysis of COVID-19 Outcomes in Type 1 and 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 analyzed 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, 2022, and 2023.

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). Hyperglycemia 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.

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