

MORTALITY STUDY IN A POPULATION OF DIABETIC OLDER ADULTS DURING THE COVID-19 PANDEMIC

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INTRODUCTION

The COVID-19 pandemic affected 550 million people and caused about 6 million deaths (1). Older adults (OA) were the most affected population segment in terms of hospitalization, poor outcomes, and mortality from COVID-19 (2, 3). This results from the high prevalence of comorbidities in OA (4). Type 2 diabetes (T2D) also has a high prevalence in this age group and the susceptibility, severity and mortality from COVID-19 among diabetic patients is increased (5-8). This background led us to investigate the impact of COVID-19 on a local population of OA with diabetes.

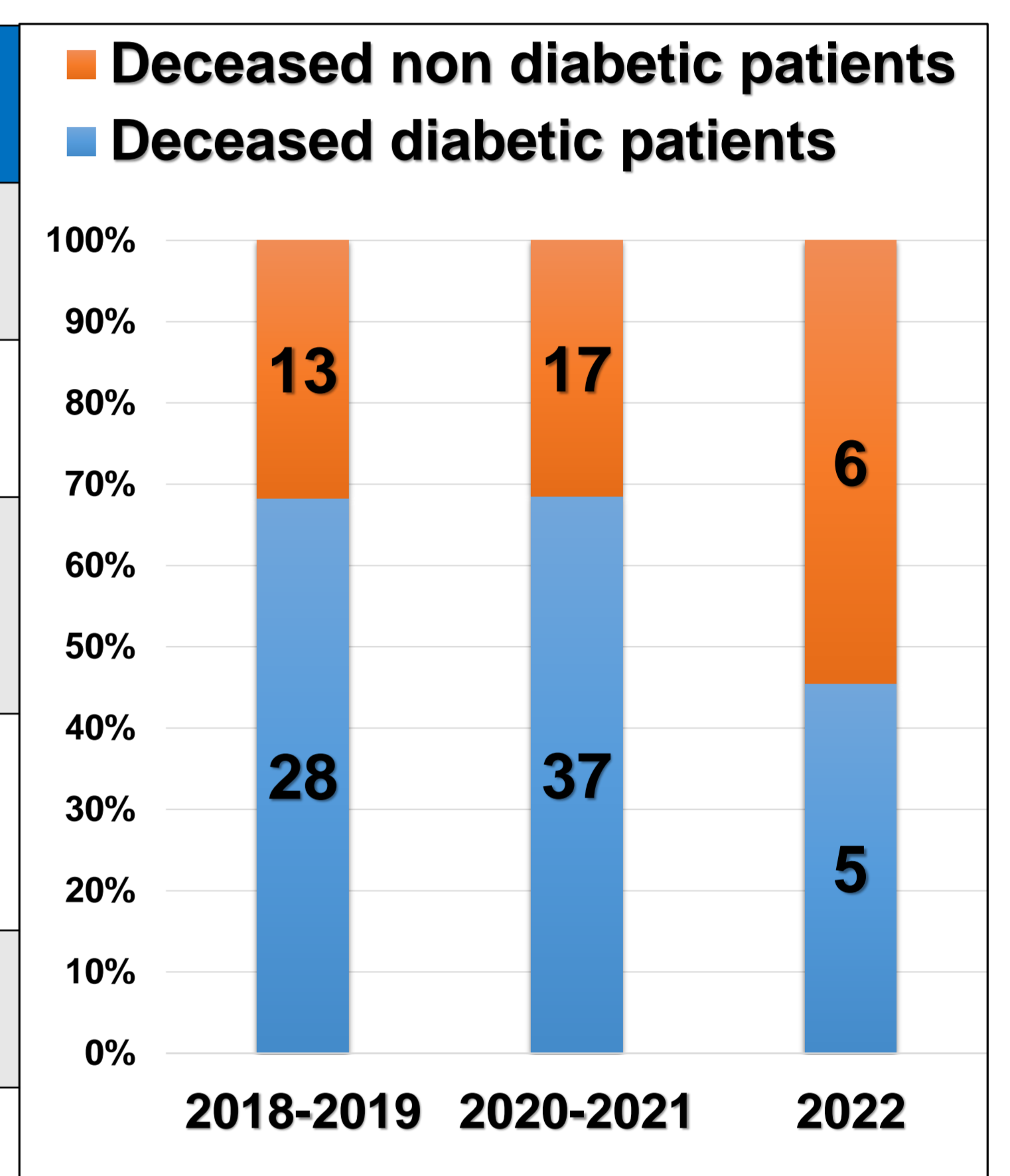
Objective: To determine mortality rates during pre-pandemic periods (years 2018-2019) and COVID-19 pandemic (2020-2021) in the studied population of OA and calculate excess mortality, and determine if diabetic patients had an increased mortality risk in this population.

Methodology: Retrospective study of medical records of 658 OA (296 suffer T2D), females: 300 and males: 358, population average age 76 years. Patients were treated at the "San Ricardo Pampuri" Health Center (Villa Carlos Paz, Córdoba, Argentina), between 2018 and 2022. Data were statistically analyzed using software Infostat ($p < 0.05$). The main epidemiological measures were calculated, the Odd Ratio was determined for diabetic patients and pre-pandemic and pandemic values were compared.

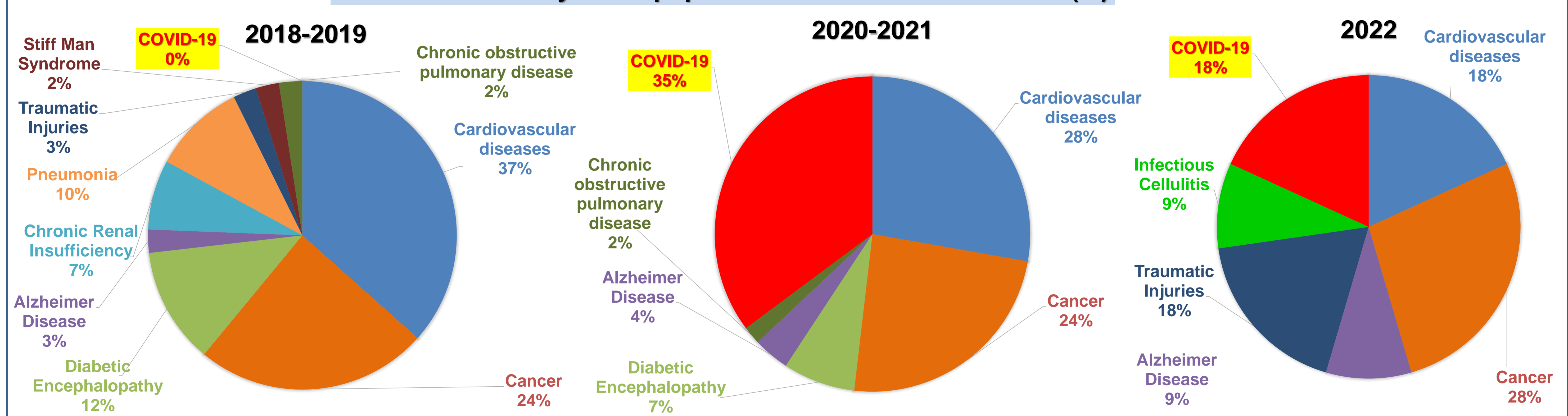
RESULTS

General mortality rates were 2018-2019: 6.23% and 2020-2021: 8.75%. Among T2D patients, mortality was: 2018-2019: 9.46% vs 2020-2021: 13.81%. COVID-19-specific mortalities were 2018-2019: 0%, in 2020-2021: 3.08% overall and 5.22% among T2D patients. During the pandemic, mortality increased by 40% in this OA population. T2D patients had a higher risk (OR: 2.6) of dying from COVID-19. The partial data for 2022 indicate that mortality decreased compared to the same period in 2021 (11vs19 total deaths and 2vs7 due to COVID-19, respectively).

	2018-2019 (24 MONTHS)	2020-2021 (24 MONTHS)			2022 (6 MONTHS)		
TOTAL DEATHS PERIOD	41	54			11		
TOTAL COVID-19 DEATHS	0	19 (35 % OF TOTAL)			2 (18% OF TOTAL)		
DEATHS OF DIABETIC PATIENTS DUE TO COVID-19	-	12 (63% OF DEATHS FROM COVID-19)			1 (50% OF DEATHS FROM COVID-19)		
GENERAL MORTALITY RATE (%)	6,23	8,75			7,81		
MORTALITY RATE BY COVID-19 (%)	-	3,08 OVERALL	2,00 NON DIABETICS	4,53 T2D DIABETICS	1,42 OVERALL	0,30 NON DIABETICS	0,43 T2D DIABETICS
EXCESS MORTALITY	-	13 (+31,7%)			4 (+9,7, ESTIMATED)		



Causes of mortality in the population of older adults studied (%)



CONCLUSION

During the COVID-19 pandemic, an increase in mortality was recorded in the OA population studied, with a greater impact on patients with T2D. The downward trend in these indicators in 2022 can probably be explained by the vaccination of this population against SARS-CoV-2 (9, 10).

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