

**“Letter to the Editor from Woolcott & Castilla-Bancayán: (Letter to the Editor:
Diabetes increases severe COVID-19 outcomes primarily in younger adults:
Age and diabetes in COVID-19 severity)”**

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Disclosure Summary: The authors have nothing to disclose.

Funding: No funding was received for this study

We read with interest the article by Diedisheim et al. (1). This study conducted in patients hospitalized for COVID-19 in Paris, France, showed that age attenuated the association of diabetes with the composite outcome of 90-day in-hospital mortality or orotracheal intubation (severe COVID-19). Among inpatients younger than 50 years of age, diabetes was associated with a 52% higher risk of severe COVID-19, adjusting for sex, smoking status, and pre-existing comorbidities. In contrast, among inpatients aged 60-70 years, diabetes was associated with a 30% higher adjusted risk of severe COVID-19.

Their sensitivity analysis showed that diabetes was significantly associated with higher in-hospital mortality in inpatients younger than 50 years but not in older patients (1). This finding points in the same direction as those reported in our previous study (2). We showed that the risk of COVID-19 related mortality associated with diabetes decreases with age. However, we found a significant adjusted association between diabetes and COVID-19 related mortality among inpatients aged 50-79 years but not among those 80 years of age or older (2). We would like to comment on some possible explanations for these differences.

First, their study was conducted in a relatively small population of inpatients in Paris (n=6,314), after exclusion of 4,134 patients without available body mass index. Exclusion of a large number of patients may compromise the power to detect significant differences. Unfortunately, information on the number of cases and fatalities by age group was not reported. Our study (2) involved a large population of inpatients with laboratory-confirmed COVID-19 in Mexico nationwide (n=181,344), allowing us to perform a robust stratified analysis in six age groups. This population had a median age of 58 years (interquartile range: 47-68); 61.2% were male; 33.3% had diabetes; 23.5% had obesity.

Second, although our risk estimates were also fully adjusted, we assessed the risk of 28-day mortality, to minimize the possible confounding effect of other causes of death unrelated to COVID-19. Third, while ethnic differences could explain, at least in part, some of the differences among findings, a weaker, albeit significant, association has also been reported between diabetes and mortality among British inpatients 65 years of age or older with COVID-19 (3).

In conclusion, growing evidence suggests that the risk of COVID-19-related mortality associated with diabetes decreases with age.

Accepted Manuscript

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