



Incidence of Hip Fractures during the COVID-19 Pandemic in Brazil

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Dear Editor,

The epidemiological behavior of hip fractures during the COVID-19 pandemic has been recently studied in several publications. Most studies on the epidemiology of hip fractures during the COVID-19 pandemic have described a decrease in the number of fractures [1–3] and others have reported an increase [4, 5].

I have read with great interest the study published by da Silva AC et al. [6] in the *Archives of Osteoporosis* (March 6, 2022), comparing the incidence of hip fractures before and during the COVID-19 pandemic, as well as the mortality, lethality, and costs associated with these fractures. The authors find a significant decrease in the incidence of hip fractures, a non-significant reduction in mortality, lethality, and costs, as well as a significant reduction in the length of hospital stay.

However, it is necessary to highlight certain aspects that could have affected the results obtained in this study. For example, in the “Study design” the filter used to select the cases is the ICD-10 code (S72.0 to S72.9), which would include in the analysis, in addition to hip fractures (S720 to S722), those fractures of the femoral diaphysis (S72.3), lower epiphysis of femur (S72.4), multiple fractures of femur (S72.7), fracture of other parts of femur (S728), and fracture of femur, unspecified part (S72.9).

The prevalence of fractures at different femoral sites varies among sources by age and gender and could influence the results of the calculations performed in this study, including the costs of care.

In older adults with increased bone fragility, lower force impacts, such as falls from standing, can cause a fracture of

the femoral diaphysis. Up to 51% of femoral (non-hip femur fractures) occur in the diaphysis, and the cause is minimal to moderate trauma in 34% of cases and pathologic causes in 15% [7]. Distal femoral fractures account 29% of femoral fragility fractures [7], and about 50% of these fractures affect patients older than 70 years, being a relevant cause of morbidity and mortality in the geriatric population [8].

In Latin America, the incidence of hip fractures has been little studied, and no comparisons have been published before and during the pandemic (except for the study by da Silva). Recently, in a population-based study, our group compared the incidence of hip fracture in Ecuador before and during the pandemic, finding that there was a significant decrease when comparing the periods 2019 vs 2020 (unpublished data).

Worldwide, hip fracture incidence has declined in recent decades, with 2 notable exceptions in Latin America (Mexico and Ecuador) [9]. The COVID-19 pandemic represents a turning point in the epidemiology of hip fracture, with some studies (local and regional in scope) describing the decrease in the number of hip fractures during the pandemic compared with previous periods, but the population-based incidence has been poorly studied. Presumably, with the progressive return to normality, there will be a readjustment of the epidemiology and it is unknown whether trends will either return to the previous sequence or a new trend will be established.

Declarations

Conflicts of interest The authors declare no competing interests.

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