

Association between excessive alcohol use and atrial fibrillation in times of Covid-19 pandemic: a necessary investigation

Associação entre o uso excessivo de álcool e fibrilação atrial em tempos de pandemia da Covid-19: uma investigação necessária

Guilherme Brasil Grezzana¹ 

Airton Tetelbom Stein² 

¹Corresponding author. Clínica Del Cuore (Antônio Prado), Rio Grande do Sul, Brazil. gbgrezzana@yahoo.com.br

²Universidade Federal de Ciências da Saúde de Porto Alegre (Porto Alegre), Rio Grande do Sul, Brazil. airton.stein@gmail.com

The current Covid-19 pandemic has been an unusual global social experience with a series of implications for healthcare.¹ Covid-19's descriptions show an interaction between diseases within the characteristics of specific populations. These conditions have been grouped within social groups according to iniquity patterns. The interaction between those diseases in the context of social and economic disparity exacerbates the adverse effects of each disease. Covid-19 is not an epidemic. It is a syndemic.²

The Covid-19 epidemic indicates an elevated frequency of mental health problems to be characterized in the list of global health priorities.³ An increase in depression and anxiety diagnosis suggests a significant impact from the Covid-19 epidemic related to the prevalence of psychological stress.⁴ Furthermore, it is relevant to highlight that some coercive measures as an attempt to stop covid-19's advance, such as social isolation or quarantines, may bring or exacerbate the negative feelings of depression, displays of anger, guilt, and fear.⁵ Thus, some people in social isolation and psychological stress related to the

epidemic may initiate unhealthy behaviors such as abusive alcohol use.⁴ Also, added to these factors, the uncertainties about maintaining or losing jobs and the economic threats are a trigger for alcohol use.⁶

Inadequate use of alcohol ingestion contributes to around three million direct deaths worldwide and the association with other risk factors for important clinical outcomes.⁶ Abusive alcohol use leads to neuroadaptations that increase the necessity of alcohol use in a feedback system.⁶ The individual differences in the rewarding and disinhibiting effects of alcohol must be considered, as acute responses to alcoholic beverage use may create dynamic effects on tolerance and need to increase consumption.⁷ Thus, all those ingredients open space for the abusive use of alcohol and substances that trigger reward and transitory relief systems for negative feelings⁸, which can also be psychiatric disorders initiators.^{8,9}

Atrial fibrillation is an arrhythmia that increases its prevalence according to the aging of the population^{1,10} and indicates a higher risk

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of cardiovascular outcomes such as cerebral cardiovascular accident and cardiac insufficiency.¹¹ Alcoholic beverage ingestion presents arrhythmogenic effects either at acute consumption^{12,13} or chronic consumption, the latter through changes in cardiac structure.^{6,11} Regular alcoholic beverage ingestion is related to atrial remodeling and the prevalence of other risk factors for atrial fibrillation.¹¹ These data were observed in epidemiologic studies^{10,11} regardless of the kind of alcoholic beverage consumed, where atrial fibrillation can be observed from small quotidian doses of alcohol (above 2g/day).¹¹

A community-based cohort study¹¹ demonstrated increasing risks of atrial fibrillation related to alcoholic beverages consumption. These findings are supported by the relation between abstinence and atrial fibrillation reduction.¹⁴ Thus, correct information about the maleficence of alcohol to the general public should be a priority, especially considering the current moment of facing COVID-19, where there are the false protecting premises of protective and controlled alcoholic beverage ingestion¹⁵ and considering an increase of up to 29% in alcohol consumption since the beginning of the epidemic.¹⁶

Some measures in an attempt to contain the global epidemic of COVID-19, such as social isolation, created healthcare demands and, among those, the abusive use of alcoholic beverages.⁸ Therefore, there is an imperious need for support for the various societies, families, members, and healthcare systems in mutual collaboration with their respective governments and a share in responsibilities.⁸ Monitoring the consumption levels during and after the COVID-19 epidemic will be necessary to better understand the effects of COVID-19 in different groups and distinguish them from those caused by existing policies of alcohol use control. Furthermore, doctors and healthcare professionals must approach patients about a habit change in alcohol consumption during the pandemic and guide them through health promotion activities to shed light on the potential damage of alcohol use in cardiovascular diseases, especially atrial fibrillation.

Authors' contribution

Both authors have contributed actively to the elaboration of the report as well as the approval of the final version.

Competing interests

No financial, legal, or political competing interests with third parties (government, commercial, private foundation, etc.) were disclosed for any aspect of the submitted work (including but not limited to grants, data monitoring board, study design, manuscript preparation, statistical analysis, etc.).

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