

# Letter to the Editor

## Alcohol consumption, substance use disorder and COVID-19

Dear Editor,

The excellent paper by Zaami et al<sup>1</sup> reports worrisome correlation between COVID-19 pandemic and substance use disorders (SUDs).

The behavioral and socio-economic factors that characterize a part of SUD patients can also be the cause of viral spread. Therefore, SUD patients are at greater risk of contracting COVID-19 infection and also of having a worse course (intensive care unit/ intubation)<sup>2</sup>.

Wang et al<sup>3</sup> reported a significantly increased risk of contracting the infection in patients with newly diagnosed SUD (alcohol use disorder – AUD; opioid use disorder – OUD; cocaine use disorder – cocaine UD; tobacco use disorders – TUD; cannabis use disorder – CUD) (corrected odds ratio – cOR 8.699 [8.411-8.997]). Subdivision in relation to subtypes revealed the following cOR values: OUD, cOR 10.244 [9.107-11.524], TUD, cOR 8.222 [7.925-8.530], AUD, cOR 7.752 [7.04-8.536], cocaine-UD, cOR 6.53 [5.242-8.134] e CUD, cOR 5.296 [4.392-6.388].

A relevant phenomenon is the significant increase in alcohol consumption (AC)<sup>4</sup>. Chronic AC involves all components of immunity (innate and acquired)<sup>5</sup>. AC induces systemic inflammation by worsening patients' response to COVID-19 infection. It also increases the risk of respiratory failure and multi-organ failure<sup>6,7</sup>.

In a historical period characterized by a COVID-19 pandemic, doctors and all health professionals must advise the population not to consume alcohol or to limit consumption to no more than one drink/day (low risk consumption).

General practitioners should analyze the most important and frequent voluntary risk factors of infections. Focusing on alcohol, the suggested tool is the alcohol use disorders identification test.

The sensitivity and specificity of the test (92% and 93%, respectively) are very high; this fact allows identifying patients affected by hazardous/harmful consumption<sup>8</sup>.

These subjects should be identified and subjected to anti COVID-19 vaccination as part of the strategy to address the COVID-19 pandemic<sup>5,9,10</sup>. It is therefore mandatory to include these patients in the category of frail subjects.

### Conflict of Interest

The author declares no conflict of interest.

### References

- 1) Zaami S, Sirignano A, Garcia-Algar O, Marinelli E. COVID-19 pandemic, substance use disorders and body image issues, a worrisome correlation. *Eur Rev Med Pharmacol Sci* 2022; 26: 291-297.
- 2) Testino G, Pellicano R. Alcohol consumption in the Covid-19 era. *Minerva Gastroenterol Dietol* 2020; 66: 90-92.
- 3) Wang QQ, Kaelber DC, Xu R, Volkow ND. Covid-19 risk and outcomes in patients with substance use disorders: analyses from electronic health records in the United States. *Molecular Psychiatry* 2020; 26: 30-39.
- 4) Da BL, Im GY, Schiano TD. Coronavirus disease 2019 hangover: a rising tide of alcohol use disorder and alcohol-associated liver disease. *Hepatology* 2020; 72: 1102-1108.
- 5) Testino G, Vignoli T, Patussi V, Allosio P, Amendola MF, Aricò S, Baseliace A, Balbinot P, Campanile V, Fanucchi T, Macciò L, Meneguzzi C, Mioni D, Parisi M, Renzetti D, Rossin R, Gandin C, Bottaro LC, Caio G, Lungaro L, Zoli G, Scafato E, Caputo F. Alcohol use disorder in the COVID-19 era: Position paper of the Italian Society on Alcohol (SIA). *Addict Biol* 2022; 27: e13090.
- 6) Girija ASS, Shankar EM, Larsson M. Could SARS-CoV-2 induced hyperinflammation magnify the severity of coronavirus disease (COVID-19) leading to acute respiratory distress syndrome? *Front Immunol* 2020; 11: 1206.

- 7) Kumar N, Janmohamed K, Nyhan K, Martins SS, Cerda M, Hasin D, Scott J, Frimpong AS, Pates R, Ghandour LA, Wazaify M, Khoshnood K. Substance use in relation to COVID-19: a scoping review. *Addict Behav* 2022; 127: 107213.
- 8) Scafato E, Caputo F, Patussi V, Balbinot P, Addolorato G, Testino G. The under treatment of alcohol-related liver diseases among people with alcohol use disorders. *Eur Rev Med Pharmacol Sci* 2020; 24: 974-982.
- 9) Azizov V, Dietel K, Steffen F, Dürholz K, Meidenbauer J, Lucas S, Frech M, Omata Y, Tajik N, Knipfer L, Kolenbrander A, Seubert S, Lapuente D, Sokolova MV, Hofmann J, Tenbusch M, Ramming A, Steffen U, Nimmerjahn F, Linker R, Wirtz S, Herrmann M, Temchura V, Sarter K, Schett G, Zaiss MM. Ethanol consumption inhibits TFH cell responses and the development of autoimmune arthritis. *Nature Communications* 2020; 11: 1998.
- 10) Testino G, Pellicano R. Sars-Cov-2 vaccination in alcohol related liver disease. *Minerva Gastroenterol* 2021. doi: 10.23736/S2724-5985.21.03081-3. Online ahead of print.

*G. Testino*

Addiction and Hepatology Unit/Alcoholological Regional Centre, ASL3  
c/o Polyclinic San Martino Hospital, Genoa, Italy