

Tobacco smoking, impacting on the risk of COVID-19

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Editorial

A recent cross-sectional, observational study on COVID-19 and tobacco smoking among 1,688 crewmembers in France revealed that current tobacco smoking status cannot be efficient protection against COVID-19 infection and age more than 50 years was statistically associated with COVID-19 (odds ratio (OR) : 2.6 (1.17-6.9); $p = 0.03$), but current tobacco smoking status was associated with a lower risk of developing COVID-19¹ from nicotine's role² that could trigger a run on nicotine products among the general public.³ Interestingly, a recent study on 1,649 confirmed COVID-19 infection in the United Kingdom demonstrated current tobacco smokers of 968 COVID-19-related hospitalization and 444 COVID-19-related deaths and indicated that current tobacco smokers had higher risks of hospitalization (OR : 1.80, 95 % confidential interval (CI) : 1.26-2.29) and higher risks of mortality (tobacco smoking : 1-9/day : OR : 2.14, 95 % CI : 0.87-5.24; 10-

19/day : OR : 5.91, 95 % CI : 3.66-9.54; > 20/day : OR : 6.11, 95 % CI : 3.59-10.42).⁴ By Mendelian randomization (MR) analyses, 281,105 White-British-study participants who genetically were predicted propensity to begin tobacco smoking was associated with higher risks of COVID-19 infection (OR: 1.45, 95 % CI: 1.10-1.91) and higher risks of hospitalization (OR: 1.60, 95 % CI: 1.13-2.27).⁴ Additionally, there was association between genetically predicted higher number of tobacco smoking (per day) and higher risks of all COVID-19 outcomes (COVID-19 infection OR : 2.51, 95 % CI : 1.20-5.24; COVID-19-related hospitalization OR : 5.08, 95 % CI : 2.04-12.66; and COVID-19-related death OR : 10.02, 95 % CI : 2.53-39.72).⁴

Conclusion

In conclusion, whereas, current tobacco-smoking status was associated with a lower risk of COVID-19 development, but this could be a paradoxical relation as efficient protection against COVID-19 infection. Other recent studies the contrast results. Thus, further urgent studies on the mechanisms of the lower susceptibility of tobacco smokers to SARS-CoV-2 (COVID-19) are needed.

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Conflicts of interest

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