

While we are discussing... the SARS-CoV-2 virus laughs

Dear Editor,

We recently read the Letter published by Zahid et al.¹ about the need to find an immediate solution for COVID-19 vaccine hesitancy in patients affected by autoimmune disease. Authors highlighted how “To reduce the catastrophic effect of COVID-19 in autoimmune patients, their treatment and management should be prioritized, and SARSCoV-2 vaccination is considered one of the most effective solutions.” It is evident that there is a great need to provide a clear communication about vaccination.

The COVID-19 pandemic has been coupled worldwide with an explosion of information about the impact of SARS-CoV-2 virus on human health. This infodemic comes from many sources and spreads via newspapers and online throughout the social networks. The huge amount of information leads to a great confusion in the general public and many to believe they know everything about COVID-19, although they are not virologists, biologists, biostatisticians, etc. “*Stupidity comes from having an answer for everything. Wisdom comes from having, for everything, a question*” the Czech poet Milan Kundera claims. We should bear these words in mind every time we discuss about COVID-19. We do not know everything; we are learning about COVID-19 by doing and use the background knowledge and experience to manage the epidemic as best as possible.

Nowadays, we are facing several opinions and information about virus mutations, the Delta one in particular, which may impact on our daily life.

The Delta variant is known to be dangerous, with a likely higher power to infect, but vaccines can protect us from this mutation too. Nevertheless, at first glance, some cautions must be placed and considered. Indeed, in the Israeli study, a decrease in the efficacy of the Pfizer vaccine was observed. This decrease is about the 64%, something to worry about. In United States, an alarming news on J&J vaccine is spread on the newspapers; the J&J vaccine does not protect by Delta variant. Again, something to worry about, though a booster dose with an RNA vaccine may solve the issue.² After few days the J&J company released an updated report, supported by scientific data, showing a reasonable coverage to the delta variant.³ Another example of misleading communication and management of available information. As a result, uncertainty and confusion among people increases. Are people vaccinated with J&J or with single-dose vaccine protected? Answering to this question is fundamental, as people start having again a “normal” day-life, for prompt action to control the spread of the contagion if necessary.

In the UK there was a lot of concern for the final European game. This is because of many days with high new COVID-19 cases. Reasons for those alarming numbers are: the prevalence of infections

with the Delta variant, probably related to a large proportion of population vaccinated with a single-dose of vaccine and scarce coverage, or behaviors that do not follow the rules of maintaining distancing or wearing a mask when recommended. As listed, many reasons may apply. Generally, under emergencies, the governments decide new immediate lockdowns, but during the European games, this did not happen though the situation remained alarming with an exponentially increasing of cases. Different approaches have been implemented worldwide to contain the epidemic.

In Australia, a complete and total isolation with blocks at the borders was applied to reduce the risk of infection. As a result, only 8% of the population was vaccinated as it is not seen as a fundamental tool to manage the epidemic spread.

Avoiding vaccination is in principle very risky. In Russia, the population refused vaccination and a lot of infections arose, leading to compulsory vaccination imposed by the government.

The regulatory agency contributes to increase the confusion and uncertainty. Several, also contradicting, claims were released over time about vaccines and age for receiving it. This has led people to doubt vaccines. Too many unclear rules to follow and no explanation why rules change over time.

At Last, there is a huge debate about the effects of vaccines on the Valzer, Alfa, Beta, Gamma variants. Gamma plus and so on. We can list researches saying that vaccines do not protect by the variants, vaccines protect a little, vaccines protect by variants. People is confused; we are too.

To be clear, in a recent study, published in New England Journal of Medicine,⁴ Lopez et al.⁴ wrote that “*The Effectiveness after one dose of vaccine (BNT162b2 or ChAdOx1 nCoV-19) was notably lower among persons with the delta variant (30.7%) than among those with the alpha variant (48.7%); the results were similar for both vaccines. With the BNT162b2 vaccine, the effectiveness of two doses was 93.7% among persons with the alpha variant and 88.0% among those with the delta variant. With the ChAdOx1 nCoV-19 vaccine, the effectiveness of two doses was 74.5% among persons with the alpha variant and 67.0% among those with the delta variant.*” This study demonstrates that two doses of vaccine are unequivocally more protective of one dose. Thus, we have now a certain answer to at least one of the major questions about the relationship between the Delta variant and the vaccines.

Epidemiologically altruism, in term of vaccination is the last important issue to face. Africa, Medio Oriental countries and in the vast majority of poor countries the vaccine remains a mirage. So far only 20 million Africans, about 1.5% of the continent's population, have been fully vaccinated. From Latin America to the Middle East to Southeast Asia, the vaccine continues to be a valuable asset.

"Protect them to protect us" should be the rule, these countries can be a sort of endemic sack where the virus move along, infect and can create new variant forms, variants which can reduce the vaccine protection over time. The French are used to say "On a remise l'église au milieu du village" ("put the church in the center of the village"), which means rehabilitating certain values after a period of fogging, or ever putting the scale of values back in order.

This particularly true and important in periods, like the current one, with extreme uncertainty, partly due to scientific discussions, but largely due communicative issues reflecting a not full understanding of the research results. This disorients people and discredits science, and meanwhile... *the virus laughs*.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

AUTHOR CONTRIBUTIONS

Massimo Ciccozzi and Silvia Angeletti: wrote and revised the letter. Antonello Maruotti, Giancarlo Ceccarelli, Fabio Divino, Michele Guarino: literature revision. All authors revised the letter.

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