

PAPER DETAILS

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Covid-19 and China, history could repeat itself!

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Letter to the Editor

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Following the draconian measures already put in place throughout the SARS-CoV-2 pandemic, a very relaxed approach has been recently adopted by Chinese health authorities in order to stop the people's angry protests against the "zero Covid" strategy. This has resulted, in turn, in a dramatic surge of CoViD-19-associated hospitalization and death rates especially among elderly patients, due to the low level of anti-SARS-CoV-2 immunization with vaccines less effective than those based upon the mRNA technology.

During the first three years of the pandemic, we have gained crucial knowledge about the complex viral-(human and animal) host interaction dynamics. Noteworthy, the acquirement of "non-silent" mutations in the SARS-CoV-2 genome, consisting of approximately 30,000 nucleobases, appears to be tightly connected with viral multiplication kinetics, with each replication cycle implying the occurrence of one mutational event every 10,000 nucleotides (Di Guardo, 2022a). This clearly justifies the progressive development, in the course of the pandemic, of pathogenic "variants of concern" (VOCs) like "alfa", "beta", "gamma" and, overall, "delta", or highly transmissible and immune-evasive VOCs like "omicron" and its numerous subvariants, including "Centaurus", "Chiron", "Gryphon" and "Cerberus" alongside the newly emerged "Kraken".

Based upon the above, the emergence of additional, highly pathogenic and/or contagious SARS-CoV-2 VOCs, capable of bypassing the immunity conferred either by vaccination or previous infection, is a matter of concern in the current China's epidemiologic situation. Still of interest, while SARS-CoV-2 - in a similar fashion to the vast majority of the pathogens causing emerging infectious diseases - most likely originated from an animal (*Rhinolophus* spp. bat) source, with the possible intervention of an "intermediate" host (Casalone and Di Guardo, 2020), at least thirty domestic and wild animal species have been hitherto deemed sensitive (albeit with different susceptibility levels) to SARS-CoV-2 infection, either spontaneously or experimentally. Furthermore, beside acquiring the virus from infected human hosts, intensely reared mink from Denmark and The Netherlands, along with white-tailed deer (*Odocoileus virginianus*) from Ontario (Canada), were also able to "return" the virus in a mutated form ("cluster 5" and "B.1.641" VOCs, respectively) to mankind (Di Guardo, 2022b).

These are very important lessons we have learned throughout the dramatic CoViD-19 pandemic, which has thus far killed almost 7 million people worldwide, according to the official data released by the World Health Organization.

And, sic stantibus rebus in China, the history could repeat itself (at least partially, in view of the mass vaccination campaigns put in place worldwide), considering the "global village" we all live in!

In conclusion, a holistic, multidisciplinary and scientific evidence-based approach, permanently inspired by the "One Health" principle, is what we need in order to adequately cope with this as well as with all the future epidemics and pandemics, while firmly keeping in mind that human, animal and environmental health are tightly and mutually linked to each other.

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