



EDITORIAL

Structural Peculiarities of SARS CoV2

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Coronaviruses are single-stranded RNA viruses that can infect not only humans, but also a huge variety of animals as well. These viruses were first studied by Tyrell and Bynoe in 1966 who cultured them from patients with common cold. Due to their spherical virions morphology along with a shell and surface projections like a solar corona, these viruses were named coronaviruses. In Latin corona means crown and there are four different subfamilies including alpha, beta, gamma and delta coronaviruses identified so far. Alpha and beta-coronaviruses have been originated from mammals, particularly from bats, gamma- and delta-coronaviruses originated from pigs and birds. The genome of these viruses differs between 26 kb and 32 kb. The beta-coronaviruses could cause severe disease and fatalities among the other seven subtypes of these viruses. Alpha-coronaviruses cause mildly symptomatic or even asymptomatic infections. SARSCoV-2 is a beta-coronavirus and is related to the SARS-CoV virus. There are four structural genes encoding the nucleocapsid protein (N), the spike protein (S), a small membrane protein (SM) and the membrane glycoprotein (M) with an extra membrane glycoprotein (HE) occurring in the HCoV-OC43 and

HKU1 beta-coronaviruses. The whole genome of SARS-CoV-2 is 96.0% identical to that of a bat coronavirus. SARS-CoV-2 seemingly had made its transition from animals on an animal market in Wuhan city in China. Although, the efforts to identify potential intermediate hosts seem to have been neglected in Wuhan and the exact transmission route have to be clarified. The primary clinical symptoms of the SARS-CoV-2- linked disease COVID-19 which permitted the case detection as pneumonia. Literatures report the description of gastrointestinal symptoms and asymptomatic infections, especially among young children. The average incubation period is ranging from 0 to 24 days. As we are writing these lines, the pandemic affects 200 countries and territories, with around 1357382 infected subjects, more than 120438 deaths and 456.773 recovered patients, according to the Johns Hopkins University.

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