

Coronavirus is the most prominent example of a virus that has crossed the species barrier twice from wild animals to humans during SARS and MERS outbreaks (79, 102). The possibility of crossing the species barrier for the third time has also been suspected in the case of SARS-CoV-2 (COVID-19). Bats are recognized as a possible natural reservoir host of both SARS-CoV and MERS-CoV infection. In contrast, the possible intermediary host is the palm civet for SARS-CoV and the dromedary camel for MERS-CoV infection (102). Bats are considered the ancestral hosts for both SARS and MERS (103). Bats are also considered the reservoir host of human coronaviruses like HCoV-229E and HCoV-NL63 (104). In the case of COVID-19, there are two possibilities for primary transmission: it can be transmitted either through intermediate hosts, similar to that of SARS and MERS, or directly from bats (103). The emergence paradigm put forward in the SARS outbreak suggests that SARS-CoV originated from bats (reservoir host) and later jumped to civets (intermediate host) and incorporated changes within the receptor-binding domain (RBD) to improve binding to civet ACE2. This civet-adapted virus, during their subsequent exposure to humans in live markets, promoted further adaptations that resulted in the epidemic strain(104).Transmission can also