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Letter to the Editor

Just one more hygiene practice in COVID-19

Dear Sirs,

In the new coronavirus outbreak, in the recurrent recommendations given by experts on hygiene practices to decrease the risk of transmission, the oral and pharyngeal disinfection seems to be overlooked[1].

Actually, COVID-19 can present as a mild upper respiratory tract illness; recently, Wölfel et al[2] published a detailed virological analysis of nine COVID-19 cases, providing unquestionable proof of active virus replication in upper respiratory tract tissues.

Pharyngeal virus shedding was very high during the first week of symptoms (peak at 7.11 X 10^8 RNA copies per throat swab, day 4) and infectious virus was readily isolated from throat derived samples. Active replication in the throat was confirmed by viral replicative RNA intermediates in throat samples. Together, these data indicate active replication of SARS-CoV-2 in the throat during the first 5 days after symptoms onset[2]. Active virus replication in the upper respiratory tract puts prospects of COVID-19 containment in perspective. Outbreaks can be controlled with preventive strategies based upon early accurate viral diagnosis and effective hygiene practices to decrease the risk of transmission. Respiratory pathogens such as influenza are also transmitted via airborne dispersion of small particle aerosols (≤ 5 μm) when an infected individual breathes, coughs or sneezes[3], while respiratory syncytial viruses, SARS-CoV and MERS-CoV as well as SARS-CoV-2 can be spread by large droplets propelled through the air and inoculated into the eyes, nose and mouth at close range[4]. Considering these modes of transmission, oral hygiene by gargling, together with hand washing and mask use[5], may be beneficial to help minimise the risk of both community and hospital-acquired respiratory infections.

Gargling with disinfectant compounds is also deemed to bring about favourable effects through removal of oral/pharyngeal protease that helps viral replication[6].

As an example, coherent with the present COVID-19 outbreak, Povidone-iodine (PVP-I) has a wide range of activity against enveloped and non-enveloped viruses[7] and recent *in vitro* studies have demonstrated its rapid virucidal activity against Ebola virus, MERS-CoV, SARS[8]. PVP-I has been used in infection control and prevention for over 60 years for use as a disinfectant for the skin, hands and mucosal surfaces. Gargling with PVP-I may be an effective method of preventing the spread of respiratory viruses when an individual is contaminated by the airborne/droplet route or after uptake via the mouth (such as when touching the mouth or food with contaminated hands). The benefit of gargling with PVP-I has already been noted in Japanese clinical respiratory guidelines[9].

In conclusion, we suggest that 15 seconds gargling (as recommended in the past experience with PVP-I 1% or other disinfectants) many times a day could be useful in preventing the COVID-19 transmission in the first phase of the illness and possibly also reduce the body spreading of the virus.

Conflict of interest

The Authors declare that they have no conflict of interests.

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