Letter to the Editor

A case of COVID-19 infection quickly relieved after nasal instillations and gargles with povidone iodine

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Dear Editor,

The SARS-CoV-2 virus is transmitted directly or transported in the form of aerosol droplets and comes into contact with the nasal and oropharyngeal mucosa where it begins to proliferate. From here, the infection spreads to the oropharynx and other respiratory organs through a mechanism called “microaspiration” [1].

As recently illustrated by McCullough et al. [2], COVID-19 disease requires early intervention that can stem hospitalizations and deaths. Its progression can be arrested if the virus is destroyed during incubation [3]. Accordingly, initial multiple therapy [2] may include nasal instillations and gargling with Povidone-Iodine (PVP-I), a soluble form of iodine, known to be a powerful virucidal. PVP-I-based gargles and nasal instillations have been shown to lower the nasopharyngeal viral load in patients with COVID-19 [4].

A 70-year-old female subject presented fever which reached 38 °C, and an intense headache. A profound asthenia confined her to bed. Subsequently, muco-hematic nasal secretions and continuous, non-productive cough appeared. The SARS-CoV-2 real-time PCR test conducted on her nasopharyngeal swab sample yielded the following results: E gene (Pan Coronavirus screening): positive; RdRP/S gene (2019-nCoV specific target gene): positive; N gene (2019-nCoV specific target gene): positive. As her general condition progressively worsened, treatment with PVP-I was started. The patient was told to inhale a 1% aqueous solution of PVP-I through each nostril until the liquid is perceived in the throat, followed by gargling with the same solution for 60 s, twice a day. After 24 h, the body temperature began gradually decreasing until it normalized. After further 24 h, all other symptoms disappeared. The cough persisted but with progressively diminishing intensity. On the third day, the patient fully recovered, except for slight asthenia. One week later, the real-time PCR test was positive only for gene N (2019-nCoV specific target gene).

This survey, although limited to a single patient, can provide useful information on how the advanced stage of COVID-19 can rapidly regress even after nasal instillations and gargles of a 1% solution of PVP-I.

Ethics approval and consent to participate
Not applicable.

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Conflict of interest
The author declares no conflict of interest.

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