



Letter to Editors

Iodine, a preventive and curative agent in the COVID-19 pandemic?



Dear Editor,

It has been known for a long time that iodine has unique germicide properties [1]. During the Asian flu in 1957 it was reported that the use of Mandl's paint seemed to prevent the development of influenza. In the untreated group 14% developed influenza, this against 2.8% in the treated group. Furthermore, in already developed influenza, starting iodine after three days of illness reduced the number of cases significantly compared to the control group, the effect being clear after only two days of treatment [2].

Pathophysiological research shows that iodine could support the innate immune system in fighting both bacterial and viral infections [3–5]. In 2013 it was shown in newborn lambs inoculated with respiratory syncytial virus (RSV) that iodine treatment resulted in less lung lesions and less pulmonary expression of RSV antigen. Also, in 3-week-old lambs it was demonstrated that iodine supplementation reduced the severity of RSV-infection [3]. Finally, epidemiological data show that in the current COVID-19 pandemic the Japanese, known for their high iodine intake, have a very low number of COVID-19 deaths compared to other countries, despite the fact that Japan has the eldest population of the world and the national lockdown has thus far been one of mild measures [6,7].

Taken into account the above mentioned pathophysiological, clinical and epidemiological data, we hypothesize that iodine is a crucial element in the optimal functioning of the innate immune system and could be the magic bullet for fighting the COVID-19 pandemic, in both a curative and preventive way. Prevention might be reached easily because of very limited side effects and fast uptake by oral supplementation. Besides it should be borne in mind that iodine deficiency is estimated to affect one third of the world population at the moment.

Given the high death rates, the high costs of healthcare and the enormous economic consequences of the current pandemic situation, it is important to conduct studies as soon as possible, especially because

this possible new treatment is simple, inexpensive and safe.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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