Dose-Response:
An International Journal
October-December 2021:1
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DOI: 10.1177/15593258211066694
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Apitherapy in COVID-19-Related Conjunctivitis

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Dear Editor-in-Chief,

Novel coronavirus, "severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)," the outbreak of which is "a public health emergency of international concern"[1] announced by the World Health Organization (WHO) on January 30, 2020, could also cause conjunctivitis. There is a growing body of evidence that SARS-CoV-2 affects the anterior surface of the eye, commonly manifested by viral conjunctivitis,[2] which highlights the importance of addressing a treatment issue in this emerging disease.

The currently recommended treatment includes cold compress and artificial tears, representing a non-ethiopathogenetic-oriented approach, and the measures directed to avoid spreading.

The aforementioned issue indicates a necessity for search of low cost, but highly effective therapeutic agents. One of such agents is honey, and the therapy using honey named apitherapy is known from the ancient period,[3] documented in several religious texts including the Veda (a book of Hindu scriptures) and the Bible, and recently it was re-evaluated.

Honey contains more than 200 compounds, which include the essential minerals such as calcium, iron, magnesium, sodium, phosphorus, sulphur, potassium, and copper and "B"-group vitamins: B1, B2, B3, B5, and B6.

Honey releases hydrogen peroxide through an enzymatic process, which explains its general antiseptic qualities.

At the same time, ascorbic acid, flavonoids, nitric oxide, copper, and hydrogen peroxide are responsible for antiviral properties preventing viral replication.[4]

Recently, it was found by using an in silico approach that SARS-CoV-protease could be inhibited by honey ingredients,[5] evidencing a potential suppressive effect on SARS-CoV-2.[6] The rationale for using honey in viral conjunctivitis appears to involve a combination of antiviral and antibacterial effects. Currently available findings highlight the therapeutic potential of honey in the management of COVID-related viral conjunctivitis, opening a new therapeutic avenue.

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Received 19 November 2021; accepted 24 November 2021

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