



# Neem Turmeric in Treatment of COVID 19

## INTRODUCTION

Neem or the scientific name is *Azadirachta indica* (Malay : *semambu*) has been used widely as an oral and topical formulation for many different medicinal purposes based on its antiviral, antimicrobial, anti-inflammatory, antiulcer, anticancer, antipyretic, antifungal and antihyperglycaemic properties. The most common form of extract from the plant is neem oil.<sup>1</sup>

Turmeric or the scientific name *Curcuma longa* (Malay : *kunyit*) is also known to have been used for centuries in India and China for the medical treatments of illnesses such as dermatologic diseases, infection, stress, and depression. Turmeric's effects on health are generally centered upon an orange-yellow colored, lipophilic polyphenol substance called "curcumin," which is acquired from the rhizomes of the herb.<sup>2</sup>

There is a claim of a healing effect from COVID-19 infection after ingestion of boiled water with neem leaves or neem leaves and turmeric mixture circulating in the social media.

In addition, a request was also received from the office of the Minister of Health Malaysia to review the effectiveness of the treatment. Therefore, we conducted a literature review on the topic to determine the antiviral effects of neem plants and turmeric in the treatment of COVID-19.

## EVIDENCE on EFFECTIVENESS and SAFETY

Based on the systematic search conducted from scientific databases, there were no published articles retrieved on the benefits of neem-based products (oil, extract or boiled water preparation) nor turmeric in treatment of COVID-19 or coronaviruses. However, one case report was found on the occurrence of adverse effects following ingestion of Mexican tea from the neem leaves.

Page et al. (2013) in a case report described a 35 year old Hispanic male with type 2 diabetes presented with profound jaundice, dizziness and weakness. He had stopped taking oral metformin four months prior to the clinical presentation. For the past three weeks, he drank several litres of a Mexican neem-based tea daily to help his diabetes although package labelling recommended one cup daily. Investigations showed hyperglycemia without ketoacidosis, jaundice and significant anaemia. The tea ingestion was discontinued and blood parameters normalised after three months. G6PD assay confirmed a new diagnosis of G6PD deficiency, which was likely triggered by the consumption of large quantities of neem tea.<sup>3</sup>

## CONCLUSION

1. No evidence retrieved on the effectiveness of neem-based products (oil, extract or boiled water preparation), turmeric or their mixture in the treatment of COVID-19.
2. Overconsumption of neem-based tea or drinks may cause new onset of G6PD deficiency which can lead to haemolytic anaemia.

## REFERENCE

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Based on available evidence up to 1 April 2020

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**Disclaimer:** This rapid assessment was prepared to provide urgent evidence-based input during COVID-19 pandemic. The report is prepared based on information available at the time of research and a limited literature. It is not a definitive statement on the safety, effectiveness or cost effectiveness of the health technology covered. Additionally, other relevant scientific findings may have been reported since completion of this report.

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