Should Virgin Coconut Oil be used in the adjunctive treatment of COVID-19?

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KEY FINDINGS

There is currently no evidence to support the use of virgin coconut oil in the adjunctive treatment of COVID-19

- Virgin coconut oil is naturally extracted from fresh coconut kernel and is rich in medium chain triglycerides, with lauric acid as the predominant fatty acid
- *In vitro* studies show that lauric acid or its derivative exert inhibitory activities against viruses with similar structure to coronavirus (enveloped ssRNA virus) such as Junin virus, vesicular stomatitis virus, human immunodeficiency virus type 1 (HIV-1), and Semliki Forest virus.
- Animal studies demonstrate antiviral activity of monolaurin, the pharmacologically active metabolite of lauric acid, on avian influenza virus and Simean immunodeficiency virus, which are both enveloped ssRNA viruses.
- Clinical trials among patients with HIV report that virgin coconut oil can increase CD4+ T lymphocyte counts and reduce viral load.
- At present, there are no studies that investigate the effectiveness of virgin coconut oil in the adjunctive treatment of COVID-19 infection.
- There is currently 1 ongoing clinical trial in the Philippines evaluating the use of virgin coconut oil in the adjunctive treatment of COVID-19 infection.
- No serious adverse events have been reported with the use of virgin coconut oil. Nausea, vomiting, mild diarrhea, and abdominal pain have been reported with the use of virgin coconut oil.
- To date, there are no guidelines that mention virgin coconut oil as an option for the adjunctive treatment of COVID-19.

RESULTS

There are no studies on the use of virgin coconut oil for the treatment of COVID-19.

There is an ongoing clinical trial that investigates the efficacy of virgin coconut oil for COVID-19 patients in the Philippines. It is a randomized controlled trial involving 80 study participants aged 18-59 years old admitted at the Philippine General Hospital with moderate to severe COVID-19. Forty participants will be given virgin coconut oil 15 mL three times daily for 2 weeks with standard care, while 40 participants will serve as the control group and will be given standard care. The primary outcome is recovery or resolution of symptoms, while the secondary outcomes include duration of hospital stay, time to first receiving ventilation or admitted to intensive care, white blood cell count, IL-6, ferritin, CRP, immunoglobulin, CD4+ counts at baseline, at one week and at two weeks, and negative test result for COVID

CONCLUSION

At present, there are no studies that demonstrate the effectiveness of virgin coconut oil in the adjunctive treatment of COVID-19 infection.

Declaration of Conflict of Interest

No conflict of interest

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Table 1. Characteristics of clinical trials

No.	Clinical Trial ID / Title	Status	Start and estimated primary completion date	Study design	Country	Population	Intervention Group(s)	Comparison Group(s)	Outcomes
1	Virgin Coconut Oil as Adjunctive Therapy for COVID-19 Patients	Still to start	April to June 2020	Randomized controlled trial	Philippines	Patients admitted at the Philippine General Hospital with moderate to severe COVID-19	Virgin coconut oil and standard care	Standard care	Primary outcome: recovery/resolution of symptoms stratified according to severity of disease Secondary outcome: duration of hospital stay, time to first receiving ventilation or admitted to intensive care, white blood cell count, IL-6, ferritin, CRP, immunoglobulin, CD4+ counts [baseline, at one week and at two weeks], negative test result for COVID