## Validation of Medicinal Plant Use Needs More Support

The COVID-19 pandemic was both a curse and a gift. As a curse, it brought immense suffering and death. All aspects of our daily lives were affected, including healthcare, the economy, and social interactions.<sup>1</sup> It was a gift because of the enormity of the problem, the same pandemic has fueled national and international initiatives to produce anti-COVID vaccines and therapies in record time.<sup>2</sup> In the Philippines, the Department of Science and Technology was at the forefront of providing technical and financial support for local research on COVID-19, specifically for three plant-based therapies or supplements.<sup>3</sup>

Our paper was one of the research studies that the DOST supported. It was a two-stage multicenter parallel, randomized clinical trial using the NIRPROMP-IHM formulation of Lagundi (*Vitex negundo*) for patients with mild COVID-19.<sup>4</sup> Stage 1 compared high and regular Lagundi doses. Stage 2 was an efficacy trial comparing the best dose found in Stage 1 to placebo. Compared to the placebo, the Lagundi group had statistically significantly lower total symptom and anosmia scores, indicating beneficial effects. There was a trend for lower symptom scores (cough, colds, fever, fatigue, body malaise, ageusia) in the Lagundi group but not statistically significant. Physician and patient-rated global evaluation ratings were higher for Lagundi than placebo, suggesting better alleviation, but were not statistically significant. Recovery times were similar for both groups, with few adverse events overall.

The second study, published in this issue, is on using virgin coconut oil (VCO) as an adjunctive treatment for hospitalized patients with COVID-19 (pages 31 to 41). Further reading of the paper also showed similar recovery times and duration of hospital stay for both VCO and placebo groups. A positive outcome was that the inflammatory marker CRP was seen to normalize in more patients in the VCO group compared to the placebo. Other positive outcomes for the VCO group included a trend for lower mortality rate and lower ICU admission. The third study involving Tawa tawa (*Euphorbia hirta*) for COVID-19 patients has yet to be published.

Positive effects were seen for both Lagundi and VCO, as stated above. In a review article by Dayrit, he recommended studies on several Philippine medicinal plants with immunomodulatory activity, including VCO and lagundi.<sup>5</sup> More extensive trials may further elucidate their full potential. I would also suggest exploring their use in long COVID.

It is only appropriate to endorse using Philippine medicinal plants for therapeutic purposes after conducting adequate human studies to establish their efficacy and safety profile. Randomized clinical trials are the gold standard; the study should have internal and external validity. More funding should be invested in such studies so that we can fully and correctly utilize our bountiful natural resources. Herbal medicines can potentially address issues in our healthcare system, such as the need for economical, effective, and safe treatments for many primary care illnesses. These were seen with the development of the NIRPROMP-IHM formulations of Lagundi and Sambong (*Blumea balsamifera*), which are being prescribed by Filipino physicians and included in the Philippine National Formulary.<sup>6</sup> Developing more herbal medicines will benefit the patients, the farmers who plant these crops, the local pharmaceutical industry, and the Philippine economy. This would further lead to increased self-sufficiency for the nation as a whole. There are many more medicinal plants to explore and use for various acute and chronic diseases. Sadly, many entrepreneurs peddle their so-called wonder drugs (herbal or otherwise) on the internet or other channels as safe and effective just because they are natural and with minimal studies claiming to cure everything under the sun. Social media should not be our sole source of information, but looking into the evidence, such as those reported by the article on VCO, can help us understand their actual place in therapy.

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