Can Artemisia herba-alba Be Useful for Managing COVID-19 and Comorbidities?

ABSTRACT

The focus of this roadmap is to evaluate the possible efficacy of Artemisia herba-alba Asso. (Asteraceae) for the treatment of COVID-19 and some of its symptoms and several comorbidities using a combination of in silico (molecular docking) studies, reported ethnic uses, and pharmacological activity studies of this plant. In this exploratory study, we show that various phytochemicals from Artemisia herba-alba can be useful against COVID-19 (in silico studies) and for its associated comorbidities. COVID-19 is a new disease, so reports of any therapeutic treatments against it (traditional or conventional) are scanty. On the other hand, we demonstrate, using Artemisia herba-alba as an example, that through a proper search and identification of medicinal plant(s) and their phytochemicals identification using secondary data (published reports) on the plant's ethnic uses, phytochemical constituents, and pharmacological activities against COVID-19 comorbidities and symptoms coupled with the use of primary data obtained from in silico (molecular docking and molecular dynamics) studies on the binding of the selected plant's phytochemicals (such as: rutin, 4,5-di-O-caffeoylquinic acid, and schaftoside) with various vital components of SARS-CoV-2, it may be possible to rapidly identify plants that are suitable for further research regarding therapeutic use against COVID-19 and its associated symptoms and comorbidities.