

Screening of medicinal Brazilian plants to use as antiviral compound

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For decades, researches have been seeking in obtaining new drugs through the knowledge gained by popular medicine. Phytotherapy is spread in some regions of Brazil, being sometimes the only alternative for treatment. In this scenario, there is growing interest in the search for novel compounds. Despite the advances made with synthetic products, natural medicine is a valuable field of research, since the biodiversity is the source of a wide range of bioactive molecules. It is known that secondary metabolites have a wide spectrum of biological activities, including potential antiviral and antiparasitic effect. Estimates suggest that 70% of drugs for infectious diseases and 67% of anticancer are either natural products or derived from them. Natural products, either pure compounds or as standardized plant extracts, provide unlimited opportunities for the development of new leads. The chemical composition of most Brazilian plants is still unknown, representing a potential to be exploited. An ethno pharmacological approach was chosen for screening extracts derived from plants used in traditional medicine to treat diseases such as rotavirus and dengue virus infections. In this study, ethanolic crude extracts from 14 medicinal species of 8 different botanical families were studied to detect antiviral activity. The complete viral inhibition was observed only with the crude extract of some of the plants selected. When fractioned all the fractions obtained showed lower antiviral activity than the crude extract. This result suggests that more than one compound are involved in the observed antiviral activity in a synergic effect.

Biography

Alzira Batista Cecilio has a degree in Biological Sciences from the Catholic University of Minas Gerais, Master's and Ph.D. in Biological Sciences (Microbiology) from the Federal University of Minas Gerais and post-doc in Health Science from Research Center René Rachou. She is currently Assistant Professor at the Pontifícia Catholic University of Minas Gerais and researcher at Fundação Ezequiel Dias. Has experience in the area of Microbiology with emphasis on Virology and Molecular Diagnostics, mainly in the following topics: dengue virus, transovarial transmission, diagnosis and molecular detection, use of biodiversity products as antiviral, RNAi, production of recombinant protein and monoclonal antibodies.

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Drinking water rules: Differences between Avicenna traditional medicine and the conventional nutrition science

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Despite the advice "Drink at least eight glasses of water a day" is ubiquitous and the nutrition resources insist on that; there is not enough scientific documents to support this advice and due to the traditional medicine it is even very harmful to drink such amount of water a day. In this study, the recommendations of traditional medicine about this issue are discussed. In the traditional medicine, there are important rules for drinking water that are noteworthy; One is that drinking water is just allowed when one is really thirsty, and there is no forbidden condition for drinking at that time. Forbidden drinking times in the traditional medicine are defined as follow: between and exactly after eating, when one is hungry, after hard work and exercise, after sleep, after intercourse, after eating fruits and vegetables, drinking hot water after salty meal and cold water after hot meal, after bath and after diarrhea. The adverse effects of drinking water more than what the body really needs are well documented in traditional medicine textbooks. Eye lids puffiness, dyspepsia, neural damage, post nasal discharge and many other organ dysfunctions are related to excessive water intake. This idea confirms Heinz Valtin's study that recommended for healthy adults, simply drinking when thirsty. Another important point to describe about nutritional guidelines is that these items are prescribed the same for all people in the conventional medicine. However the drinking water rules are different in according to people temperaments (mezaj) in the traditional medicine. In conclusion the authors recommend not to follow the hydrotherapy or drinking suggestions without scientific evidence-based reports and encourage researchers to investigate possible side effects of excessive water intake in animal and then human studies.

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