

Addition of *Camellia sinensis* extract to water can make respiratory viruses lose their infectivity

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Respiratory infectious diseases are one of the most important diseases nowadays due to COVID-19 pandemic. Since the beginning of this pandemic and new precautions become part of our daily life as wearing masks and keeping distance and others, On top one has to disinfect all products bought from markets as plastic or cartoon bottles, cans and even fruits or vegetables before using them at home which is very tiring. We aimed to test virucidal effect of natural plant extracts that can be easily and safely added to water and this water can be used to macerate all bought products and so disinfect them with less effort. Different extraction methods were applied to *Camellia sinensis* plant, extracts were analyzed to know chemical composition and concentration of each compound then tested for their virucidal effect against number of respiratory viruses (enveloped and non-enveloped). Highest effective concentrations of extracts were applied to water inoculated with the tested viruses to identify best extract concentration and optimum contact time. Finally viruses were inoculated over the surfaces of cans, plastic or cartoon bottles, vegetables of smooth or rough surfaces for 30 minutes then macerated in water supplemented with plant extract and % reduction in viral count was detected.

Biography

Dina Nadeem Abd-Elshafy has her expertise in relation between viral pathogenicity and human health especially in high risk group people. Antiviral effect and it's applications in environment. Waste water treatment for viral removal for safe reuse. Change in viral behavior due to mutations. Recording changes in viral prevalence of different waterborne and airborne viruses in environment. She was awarded two fellowships one in 2012: Post doc fellowship in Helmholtz Center for infectious diseases in Braunischweig, Germany and one in 2014: Post doc fellowship in Twin core institute in Hannover, Germany. She supervised 1 mater and 2 PhD thesis; she shared in number of research projects, 3 as PI, 2 a CoPI and 12 as member.