The Inhibitory Effects of Guava Leaf Extract (GvEx) Against Influenza Virus Infection in Mice

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Abstract

The inhibitory effect of guava leaf extract (GvEx) on influenza virus infection was examined using the hemagglutination-inhibition test and the preventive effect on influenza infection in mice. GvEx had the same level of hemagglutination-inhibition activity for two different subtypes (PR8 (H1N1) and Guizhou (H3N2)) of human influenza A virus. It was found that GvEx-treated influenza virus lost its infectivity so that there was decreased morbidity and increased survival of mice after nasal injection. Investigation of various canned tea products revealed that guava tea had the same strong hemagglutination-inhibition effect as black tea and caused the same marked inhibition of influenza infection as black and green tea. These results indicated that GvEx and commercial guava tea can bind to the surface of influenza virus and inhibit its adhesion to epithelial cells in the respiratory tract thus blocking its infectivity.

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