

Ellagic acid as a possible adjuvant treatment for COVID- 19 disease

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Ellagic acid (2,3,7,8-tetrahydroxy-chromeno[5,4,3-cde]chromene-5,10-dione) is a polyphenol found in several fruits. We think that it can be effective in the treatment of COVID-19 .

1. This agent has antiviral effects. Its effectiveness on influenza A(H3N2) , three rhinoviruses HRV-2, HRV-3, and HRV-4 ,ebola , HIV-1, HSV-1 , and noroviruses has been shown.(2-5)
2. It has anti-oxidant, anti-inflammatory and anti-allergic effects. Interestingly this phenol has a synergistic effect with anti-malarial drugs. Antimalarials are now considered in the treatment protocol of COVID-19(6)
3. Ellagic acid has a protective role in the treatment of lung damage by modulating antioxidant activities, apoptosis induction and inhibition of inflammatory mediators.(7) In a study on mice with acute lung injuries, ellagic acid showed anti-inflammatory effects by decreasing COX-2 inhibitor. Ellagic acid decreased vascular permeability alterations and the neutrophil recruitment in brochoalveolar fluid. It reduced IL-6 and increased IL-10 in the brochoalveolar fluid. (8)

As a result, ellagic acid can be a novel and safe adjuvant drug for COVID-19 disease.

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