

Joint Event on
European Heart Congress & Traditional Medicine Congress

October 23-24, 2019 | Prague, Czech Republic

Black ginseng (CJ EnerG) exhibits a higher survival rate than red ginseng against lethal influenza A virus infection

Do Yu Soung¹, Eun-Ha Kim², Son-Woo Kim¹, Su-Jin Park², Semi Kim², Kwang-Min Yu², Seung Hun Lee², Yong-Ki Seo¹, Nam-Hoon Cho¹ and Kimoan Kang¹

¹CJ CheilJedang, Republic of Korea

²Chungbuk National University, Republic of Korea

Black ginseng (BG, CJ EnerG), prepared via nine repeated cycles of steaming and drying of fresh ginseng (*Panax ginseng* C.A. Meyer), contains more accessible acid polysaccharides and smaller and less polar ginsenosides than red ginseng (RG) processed once. Because RG reportedly exhibits host protection against viral infection, we investigated the antiviral effects of BG. Mice were orally administered either BG or RG (10 mg/kg body weight daily) for two weeks followed by infection with the A(H1N1)pdm09(A/California/04/2009) virus. Mice were fed either BG or RG for one more week. We also included the negative control without treatment and the positive control given Tamiflu. Infected mice were monitored for 14 days to determine the survival rate. Lung tissues were evaluated using virus titer and histological analyses. Cytokine levels were measured in bronchoalveolar lavage fluid. Mice treated with BG displayed a 100% survival rate against infection while mice treated with RG had a 50% survival rate. Further, BG induced fewer accumulated inflammatory cells in bronchioles than RG. BG also significantly enhanced the levels of GM-CSF and IL-10 during the early and late stages of infection, respectively compared to RG. Thus, BG (CJ EnerG) may be useful as an alternative antiviral adjuvant to modulate immune responses to Influenza A virus.