Scutelaria barbata – efeito anti vírus – para influenza

[The cytology mechanism of anti-parainfluenza virus infection of total flavone of Scutellaria barbata].

[Article in Chinese]

Source
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Abstract
In order to research into the cytology mechanism of anti-virus action of total flavone of Scutellaria barbata (TFSB), the effects of TFSB on host cells membrane potential, Na(+-)K(+-)-ATPase activity and membrane fluidity after parainfluenza virus type1 (PIV-1) infection were studied. The changes of membrane potential which was fluorescent labeled with DiBAC4(3) and its changes were measured by flow cytometer. Phosphorus determination method and spectrophotometry were used to measure the Na(+-)K(+-)-ATPase activity of Hep-2 cells membrane after PIV-1 infection. Hep-2 cells membrane phospholipids were fluorescent labeled with NBD-C6-HPC and membrane fluidity was measured by confocal scanning laser microscope. The result demonstrated that post PIV-1 infection membrane potential decreased significantly and the membrane was in a state of hyperpolarization, Na(+-)K(+-)-ATPase activity increased significantly and membrane fluidity decreased significantly. There was no apparent interfere effect of TFSB on the changes of membrane potential and Na(+-)K(+-)-ATPase activity after PIV-1 infection, while membrane fluidity improved significantly. It was indicated that the cytology mechanism of PIV-1 infection might be related to membrane hyperpolarization, Na(+-)K(+-)-ATPase activity increase and membrane fluidity decrease. TFSB can improve membrane fluidity and prevent the infection by protecting the cell membrane. But it is possible that the anti-PIV-1 mechanisms of TFSB had nothing to do with membrane potential and Na(+-)K(+-)-ATPase activity.

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