

ABSTRACT

Antiviral Activity of *Momordica charantia* L. Fruit Extract against Influenza A Viruses Subtype Pandemic-2009 H1N1 and H5N1.

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Objective: To investigate antiviral activity of *Momordica charantia* L. fruit methanolic extract to inhibit viral growth in embryonated chicken egg infected with influenza A viruses (Subtype pandemic-2009 H1N1 and H5N1).

Methods: *Momordica charantia* L. fruit were extracted using methanol by maceration method. Toxicity test of the methanolic extract was evaluated in embryonated chicken. Antiviral activity was performed in embryonated chicken egg and evaluated by hemagglutination (HA) test. The mean of HA titre will be used to calculate inhibitory percentage of the methanolic extract as an antiviral.

Results: This extract did not show any toxic effect (death) in embryonated chicken egg. This extract also showed its effect to reduce viral HA titre, on both influenza A viruses subtype pandemic-2009 H1N1 and H5N1, compared to the negative control. The percentage of inhibition of this extract against pandemic-2009 H1N1 influenza A virus is 75,5% at concentration 1000 µg/mL. While for H5N1 influenza A virus, the percentage of inhibition is 45,4% at concentration 250 µg/mL.

Conclusion: *Momordica charantia* L. fruit methanolic extract exhibited antiviral activity against influenza A viruses subtype pandemic-2009 H1N1 and H5N1.

Keywords: *Momordica charantia* L., influenza A, H1N1, H5N1, embryonated chicken egg, hemagglutination test.