

Asthma, respiratory allergy and cough

The bronchodilatory, antitussive and anti-inflammatory effect of morin in experimental conditions of allergic asthma

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The aim of our experiment was to estimate the effect of flavonoid morin on airway defence mechanisms and airway inflammation after acute and chronic administration in the experimental conditions of allergic asthma.

Allergic inflammation was induced by 21 days ovalbumin - sensitization. Guinea pigs were acutely treated by morin (30mg/kg, p.o.), salbutamol (4mM, inhalation), codeine (10mg/kg, p.o.) or chronically by morin (30mg/kg, p.o.), salmeterol (0,17mM, inhalation), codeine (10mg/kg, p.o.) and budesonide (1mM, inhalation). The specific airway resistance and cough reflex were assessed in conscious animals by *in vivo* method. The changes in amplitude contraction of tracheal smooth muscle and inflammatory parameters (IL-4, IL-5, IL-13) were investigated by *in vitro* methods.

Acute administration of morin caused significant decrease of bronchial reactivity and suppressed cough reflex. Similarly, tested substance has shown bronchodilator and antitussive activity during chronic administration. Morin demonstrated more significant effect than salmeterol. The values of inflammatory parameters correlated with above mentioned results.

Our experiment confirmed anti-asthmatic effects of morin. Thus, we can say, that tested flavonoid may be useful in prevention as well as a proper supplement in asthma treatment.

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