



### Comparison of several combinations maintenance and reliever therapy for asthma patients

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**Background:** If asthma patients fail to achieve symptom control using a medium dose of inhaled corticosteroid (ICS) alone, addition of a long-acting  $\beta_2$  agonist (LABA) is the preferred treatment. Currently, there are several combinations of ICS/LABA that are available.

**Objective:** Compare the effects of several combinations for maintenance and reliever asthma therapy.

**Methods:** In cross-sectional study of asthma patients, the incidence of asthma attacks in last year, use of rescue therapy and oral corticosteroids and hospital admission were estimated. To establish the differences between different combinations (fluticasone/salmeterol, budesonide/formoterol, mometasone/formoterol and betamethasone) were performed chi-square test.

**Results:** 51 patients were included. The mean  $\pm$  SD age was  $56.1 \pm 14.4$  years and 66 % were female gender. The incidence of asthma attacks in last year, use of rescue therapy and oral corticosteroids and hospital admission were 33.3 % (17), 74.5 % (35), 13.7 % (seven) and 11.7 % (six), respectively. The incidence of asthma attacks in the last year was significantly lower in the fluticasone/salmeterol group ( $p = 0.03$ ) and significantly higher in the betamethasone group ( $p = 0.01$ ). There were no significant differences between the use of rescue therapy and oral corticosteroids and hospital admission.

**Conclusions:** In this study, these combination therapies showed different treatment outcomes; they must be investigated further to clarify suitable patient characters and the long-term efficacies for each combinations.

**Keywords:** Reliever therapy; Asthma