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# Effects of Huobahuagen tablet on the anti-inflammatory mechanism and the expression of interleukin-5 receptor mRNA in bronchoalveolar lavage fluid of asthmatic guinea pigs

LUO Liang, LUO Ya-Ling, LAI Wen-Yan<sup>1</sup>

(Dept of Respiratory Diseases, <sup>1</sup>Laboratory of Research of Cardiovascular Diseases, Nanfang Hospital, the First Military Medical University, Guangzhou 510515)

**ABSTRACT** **AIM** To investigate the effects of Huobahuagen tablet on the anti-inflammatory mechanism evenly and the expression of interleukin-5 (IL-5) receptor mRNA in bronchoalveolar lavage fluid (BALF) of asthmatic guinea pigs. **METHODS**

Thirty-two healthy guinea pigs were divided into four groups randomly control group, asthma group, dexamethasone therapy group and Huobahuagen tablet therapy group. The guinea pigs of the three latter groups were made models of asthmatic guinea pig. We measured total cell number and cell classification of BALF of guinea pigs. Then pulmonary histopathologic examination was performed. Finally, we performed semi-quantitative analysis of reverse transcription-polymerase chain reaction (RT-PCR) of IL-5 receptor mRNA in BALF. **RESULTS** Compared with control group and asthmatic group, the number of eosinophil (Eos) of BALF in Huobahuagen

tablet therapy group was significantly lower,  $P < 0.05$  and  $P < 0.01$ , respectively. Though there were hyperemia and edema in pulmonary histopathologic slices of the Huobahuagen tablet therapy group, the number of Eos infiltration in them was less than that in pulmonary histopathologic slices of the asthmatic group. The semi-quantitative analysis of RT-PCR IL-5 receptor mRNA in BALF was significantly higher in the Huobahuagen tablet therapy group, than in normal control and asthmatic groups,  $P < 0.01$ . **CONCLUSION** The Huobahuagen tablet can significantly inhibit the number of Eos in the airway of guinea pigs, and this research can be an elementary theoretic foundation for the clinical therapy of asthma in the future.

**KEY WORDS** huobahuagen tablet; asthma; guinea pig; interleukin-5; eosinophil

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## 《中国药理学通报》连续 8 年入选《CA 千种表》

美国《CA 千种表》新近公布, 2002 年, 我国(包括台湾地区)共有 95 种期刊入选。其中医药学期刊 26 种。他们是: 第四军医大学学报, 中草药, 中国病理生理杂志, 中国公共卫生, 中华医学杂志(英文版), 药学报, 第一军医大学学报, 中国医药工业杂志, 中华医学杂志, 广东微量元素科学, 世界免疫学杂志, 中国药理学杂志, 中国医院药理学杂志, 中国生物化学与分子生物学报, 解放军医学杂志, 第二军医大学学报, 第三军医大学学报, 中国免疫学杂志微生物学通报, 遗传学报, 微生物学报, 遗传, 华西医科大学学报, 世界胃肠病学杂志(英文版), 细胞与分子免疫学杂志。其中, 中国药理学通报在入选的 95 种期刊中名列第 30 位, 在 CA 名次中位列第 538 位。中国药理学会主办的另一期刊中国药理学报名列 670 位。至此, 中国药理学通报已连续 8 年入选《CA 千种表》。

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