



Investigation of the Anti-inflammatory and Synergistic Activities of Bulbus *Fritillariae ussuriensis* and Xuehua Pear using Acute Inflammatory Models

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SUMMARY. The combination of the bulb of *Fritillaria ussuriensis* Maxim. (Bulbus *Fritillariae ussuriensis*, BFU) and the fruit of *Pyrus bretschneideri* Rehd. (Xuehua pear, PBR), as folk medicine, is widely used in treatment with respiratory disease. In this study, three acute inflammatory models were used to estimate the anti-inflammatory activities and cooperative interactions of them. The data were dealt with the Tallarida's improved contouring method and the Q value method to evaluate the cooperative interactions of BFU and PBR more directly. All the treated groups showed well preventive effects on xylene-induced mouse auricular edema, acetic acid-induced mouse vascular permeation and carrageenin-induced rat paw edema in a dose-dependent manner. Combination of BFU and PBR (CBP) exhibited a higher inhibitory effect than the additive effect of individuals. These results indicated that BFU and PBR both had good anti-inflammatory effects and the combination of them had synergistic effects on acute inflammation, which may support and supplement the civilian utilization of Bulbus *Fritillariae* and Fructus *Pyri* in treatment with the respiratory tract diseases, just like pharyngitis, laryngitis, tonsillitis, etc.

KEY WORDS: Anti-inflammatory effect, Bulbus *Fritillariae ussuriensis*, *Fritillaria ussuriensis* Maxim., *Pyrus bretschneideri* Rehd., Synergistic activity, Xuehua pear.

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