

工业药剂学

## 甲磺酸二氢麦角碱鼻用乳剂的制备及其体内外性质考察

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摘要

目的 评价鼻用乳剂与鼻用溶液剂的优越性, 寻找新的给药方式。方法 以甲磺酸二氢麦角碱为模型药物, 采用高压匀质法制备甲磺酸二氢麦角碱乳剂, 与配备的溶液剂平行考察其体外纤毛毒性、黏度和体内药物动力学。结果 在体外纤毛毒性考察中, 乳剂毒性明显低于溶液剂; 在黏度测定中, 乳剂的黏度高于溶液剂; 体内药物动力学考察结果显示, 乳剂组达峰时间快, 消除速率慢, 生物利用度高于溶液剂9.4 %左右。结论 甲磺酸二氢麦角碱鼻用乳剂与溶液剂相比能有效地降低毒性并改善体内吸收, 是可供选择的鼻用制剂。

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## Preparation and *in vitro/in vivo* characterization of ergoloid mesylate emulsion for intranasal administration

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Abstract

Objective To evaluate the advantages of ergoloid mesylate emulsion over ergoloid mesylate solution for intranasal administration. Methods The emulsion for intranasal administration was prepared using high-pressure homogenization method. The nasal irritation, viscosity and *in vivo* behavior of the emulsion were studied and compared with that of the corresponding solution. Results Compared to the solution, the emulsion showed significantly decreased nasal irritation and higher viscosity with lower  $t_{max}$ , prolonged  $t_{1/2}$  and the bioavailability increased 9.4%. Conclusion Compared to the solution, ergoloid mesylate emulsion could effectively decrease nasal irritation and increase *in vivo* absorption, suggesting that it can be a promising alternative for intranasal administration.

Key words [pharmaceutics](#) [emulsion](#) [high-pressure homogenization](#) [ergoloid mesylate](#) [nasal dosage form](#) [nasal irritation](#)

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