

# 前包钦格复合体注射生脉注射液对 COPD 大鼠膈神经放电的影响<sup>\*</sup>

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**摘要:**目的 观察在慢性阻塞性肺疾病(COPD)模型大鼠延髓前包钦格复合体(pre-B zinger complex, PBC)区微量注射生脉注射液(简称生脉)后其膈神经放电情况,初步探讨生脉对 COPD 呼吸中枢的调节作用。**方法** 20 只 SD 大鼠随机分为正常组与模型组,每组 10 只,模型组采用香烟结合脂多糖方法制作。采用脑立体定位和中枢微量注射技术,在大鼠 PBC 区注射生理盐水和生脉,记录膈神经放电。**结果** 正常组和模型组大鼠 PBC 注射生脉后,膈神经放电的频率、强度、积分均比注射生理盐水显著增加( $P < 0.001$ );模型组注射生脉后,膈神经放电强度的增长幅度明显大于正常组( $P < 0.01$ )。**结论** 生脉对大鼠呼吸中枢 PBC 核团有兴奋效应,且此效应在模型大鼠更强。

**关键词:**生脉注射液;前包钦格复合体;慢性阻塞性肺疾病;膈神经

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## Effect of Shengmai Injection on Phrenic Nerve Discharge of COPD Rats

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**Abstract Objective** To observe the effect of Shengmai Injection in PBC (pre-Bzinger complex) region before medulla on discharge condition of phrenic nerve in rats with COPD (chronic obstructive pulmonary diseases) to primarily investigate the function of Shengmai Injection in regulating COPD Rats' respiratory center. **Methods** The 20 SD rats evenly divided into normal and model groups, the model group was produced by cigarette combined with lipopolysaccharide. Saline and Shengmai Injection were injected in rats' PBC region by brain stereotaxic and central microinjection techniques to record the discharge of phrenic nerve. **Results** The discharge frequency, intensity and capacity of phrenic nerve after Shengmai Injection in both groups increased more than the groups merely injecting saline ( $P < 0.001$ ); after injected Shengmai Injection, the growth rate of phrenic nerve discharge in model group was obviously greater than that in nor-

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