

论著

## 耳鸣电生理学实验性研究

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**摘要** 目的: 探讨耳鸣神经生理学机制的实验依据。方法: 采用长期注射水杨酸盐来建立耳鸣动物模型, 以耳蜗神经活动的平均谱(ASECA)为指标, 观察不同声刺激条件下耳蜗神经相应电活动的改变。结果: (1) 最初第1次注射水杨酸盐数小时后, ASECA幅值呈急剧下降, 注射2周和3周后, 这一下降程度明显减弱。(2) 长期注射水杨酸盐后, ASECA幅值逐渐上升, 但长期注射后期, ASECA-1 kHz的调谐曲线显示其敏感性部分降低。(3) 对照组中等强度同侧宽带噪声引起类似水杨酸盐注射2-3周后ASECA-1 kHz上升幅度的结果, 但却引起较高频率复合动作电位(CAP)阈值提高。结论: 耳鸣动物模型中ASECA幅值上升的特征变化极可能为蜗神经纤维同步性自发放电活动的增强。

**关键词** [耳鸣](#); [水杨酸盐类](#); [电生理学](#)

**分类号** [R363](#)

## Experimental study of tinnitus on electrophysiology

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### Abstract

<FONT face=Verdana>AIM: To find the evidence of electrophysiologic mechanisms associated with average spectrum of electrophysiological cochleoneural activity (ASECA), a measure of spontaneous auditory nerve activity alterations. METHODS: The long-term salicylate treatment was used to establish the available animal model of tinnitus, the ASECA was monitored, and the effects of various presented ipsilateral acoustic were investigated. RESULTS: (1) In the first treatment, ASECA decreased acutely during several hours after salicylate administration. After several days (1 week and 2 weeks) this decrease was reduced. (2) Over weeks of salicylate administration, the level of ASECA increased progressively, but at the end of treatment, acoustic tuning of ASECA showed a partially decreased sensitivity. (3) In control animals, delivery of an ipsilateral noise reproduced the increase in the level of ASECA that was similar to the result observed in long-term salicylate-treated animals. The noise (the white noise was 55-60 dB SPL) was of moderate level and it slightly elevated CAP thresholds at higher frequencies. CONCLUSION: In the long-term salicylate-treated animals, the ASECA-1 kHz increased reflects strongly increased synchronized activity in the auditory nerve. </FONT>

**Key words** [Tinnitus](#) [Salicylates](#) [Electrophysiology](#)

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