

论著

蟾酥对豚鼠心脏电生理的影响

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摘要 **目的** 探讨蟾酥对豚鼠心脏的急性毒性。**方法** 豚鼠一次性ig给予蟾酥125和250 mg·kg⁻¹, 记录心电图并监测左心室内压力上升最大速率(dp/dt_{max}), 最大收缩压(P_{max}), 心率血压乘积(RPP)和心室最小舒张压(P_{min})。**结果** 蟾酥使豚鼠心电图发生显著改变; 与正常对照组P-R间期(27.8±5.1) ms相比, 蟾酥125和250 mg·kg⁻¹组显著延长, 分别为44.5±7.2和(57.1±8.9) ms ($P<0.01$); 蟾酥也引起心电图QRS时程增宽和心率加快; dp/dt_{max} , P_{max} 和RPP显著下降以及 P_{min} 显著升高($P<0.05$)。与阳性对照地高辛300 mg·kg⁻¹相比, 蟾酥组P-R间期, QRS时程, dp/dt_{max} , P_{max} , RPP和 P_{min} 无显著性差异, 但心率显著增快($P<0.01$)。**结论** 蟾酥导致豚鼠心律失常和心功能下降。

关键词 [蟾酥](#) [心脏毒性](#) [心律失常](#) [心功能](#)

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Toxic effect of Chansu on cardiac electrophysiology in guinea-pigs

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Abstract

OBJECTIVE To study the effect of Chansu(toad venom, *Venenum Bufonis*) on the cardiac electrical activity and function. **METHODS** After guinea-pigs were ig given a single dose of Chansu 125 and 250 mg·kg⁻¹, electrocardiography and cardiac function were monitored. The cardiac function was evaluated by measuring the maximum rate of rise of left ventricular pressure (dp/dt_{max}), the maximum systolic pressure (P_{max}), rate-pressure product (RPP) and the minimum diastolic pressure (P_{min}). **RESULTS** Compared with normal control group, the P-R interval in Chansu 150 and 250 mg·kg⁻¹ groups significantly increased from (27.8±5.1) ms to 44.5±7.2 and (57.1±8.9)ms ($P<0.01$). Chansu also induced wide QRS complex and rapid heart rate, markedly increased P_{min} ($P<0.05$), but decreased P_{max} , RPP and dp/dt_{max} ($P<0.05$). No significant difference in P-R interval, QRS complex, dp/dt_{max} , P_{max} , RPP and P_{min} was observed between Chansu and digoxin 300 mg·kg⁻¹, but Chansu induced faster heart rate than digoxin. **CONCLUSION** Chansu poisoning can induce arrhythmias and cardiac dysfunction.

Key words [Chansu](#) [cardiotoxicity](#) [arrhythmias](#) [cardiac function](#)

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