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TIME-DEPENDENT EFFECT OF IBUTILIDE ON RABBIT CARDIAC ELECTROPHYSIOLOGICAL CHARACTERISTICS

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Objectives To observe time-dependent effect of ibutilide on rabbit cardiac electrophysiological characteristics.

Methods 20 adult and healthy New Zealand rabbits were anesthetised and intubated with a tracheal tube. The cardiac electrophysiologic variables were measured before and after ibutilide infusion (0, 10, 15, 30, 40, 60, 90, 120, 180, 240 min) at a dosage of 0.284 mg/kg. These variables included the RR, ERP, pR, pA, QRS, QT, AH, HV intervals.

Results

1. Ibutilide significantly prolonged the AERP p<0. 05) at basic drive cycle lengths of 150–220 ms and there was non-significantly decrease of rate-dependent effect of AERP (p>0.05).
2. Ibutilide had the significant suppressing effect on the sinus heart rate. The peak response time was 90 min (RR=272.36 ±9.43 ms) and the heart rate recovered without drug administration.
3. The differences of A–H interval and H–V interval at sinus rhythm before and after the administration of ibutilide weren't significant (all p>0.05). After injection of ibutilide, the PR, QRS, QT intervals were significantly prolonged after administration in 10 min to 240 min, the peak response time was 90 min.
4. ST–T segment was elevated after administration of ibutilide in 2 min, resolved in 60 min and disappeared in 9 h.

5. There were no significant arrhythmia by administration at a dosage of 0.287 mg/kg. The rabbit developed the frequent occurrence of