

GW23-e0123

INTRAVENOUS SOTALOL FOR INCESSANT TACHYARRHYTHMIAS IN CHILDREN

doi:10.1136/heartjnl-2012-302920s.2

Yan Zhang, Xiaomei Li, Zhengkun Xu, Haiju Liu, Xiaomei Li. *Department of Pediatric Cardiology, First Hospital of Tsinghua University*

Objectives To investigate the effects and safety of intravenous sotalol to treat paediatric incessant tachyarrhythmias with normal cardiac function.

Methods 19 children (age 2.0 ± 2.3 years) presenting incessant tachyarrhythmias were treated with intravenous sotalol (dose 5 mg/kg.d). To investigate the efficacy: the duration between start of iv sotalol to the point of reversion to sinus rhythm and whether sinus rhythm could be maintained. Blood pressure, heart rate and rhythm were closely monitored during drug use, QTc and PR interval were measured after drug use.

Results Totally 14 patients (73.3%) were successfully reversed to sinus rhythm during 24 h of iv sotalol. Duration between start of iv sotalol to reversion of sinus rhythm is 5.3 ± 9.3 h (0.05–24 h). 9 patients were diagnosed as atrioventricular reentrant tachycardia, 7 of them reversed to sinus rhythm (77.8%), duration 28.7 ± 17.3 min (3–50 min). 6 patients were diagnosed as incessant atrial tachycardia, 4 of them reversed to sinus rhythm (66.7%), duration 4.8 ± 7.5 h (0.5–16 h). 3 patients were diagnosed as incessant atrial flutter, 2 of them reversed to sinus rhythm (66.7%), duration 23–24 h. 1 patient diagnose as idiopathic ventricular tachycardia originated from left mid-posterior septum reversed to sinus rhythm after 1 h of iv sotalol. Obvious QTc prolongation was detected in 2 patients after iv sotalol (486–500 ms), iv sotalol was withdrawn and oral sotalol was added, QTc reversed to normal range after 1 month for both of them. No torsade de points or other arrhythmias associated with iv sotalol were detected during drug use.

Conclusions Intravenous sotalol can be safely and effectively used for paediatric tachyarrhythmias with normal cardiac function. No iv sotalol associated arrhythmias or toxicity were detected. Monitoring of QTc is required during iv sotalol.