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Congenital Junctional Ectopic Tachycardia – difficult clinical problem

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Introduction Congenital junctional ectopic tachycardia – JET is a rare tachyarrhythmia, may be a reason of post tachycardia cardiomyopathy, is associated with high morbidity and mortality. The purpose of the study was to present our experience with JET in small children. Material and methods: We have 7 children (5 boys) with congenital JET, in 5 of them the tachycardia was diagnosed and treated (digoxin, sotalol or amiodaron) in their fetal life, in one at neonatal period, and in one at age of near 3 year. Among the patients we have two couples of brother and sister (one of them are twins). Results: At the beginning of observation all children presented incessant tachycardia, they have normal heart with good function, on chest X-ray cardiac index was 0.5-0.55, on ECG all had JET with heart rate 155-300 beats/min. In all children we started aggressive pharmacotherapy with two or three drugs (digoxin, propranolol and propafenon, sotalol or amiodaron). During the follow-up period (ranged from 7 months to 8 years) in all but one we slowed heart rate on medication. In one boy with very fast JET rate emergent radiofrequency (RF) catheter ablation was necessary followed by epicardial pacemaker system implantation at the 7th month of life, he is still on drugs with JET or pacing rhythm. Three children still have JET, with drug control heart rate, one has sinus rhythm and short periods of JET, one brother and sister (twins) converted to sinus rhythm after 5 years of observation. Conclusions: Young children with congenital JET need aggressive pharmacotherapy, ablation procedure may be necessary very early, in some children sinus rhythm may recover.