Intrauterine first-line therapy and outcome of fetal heterotopic tachycardia

Marouane Boukhris, Kaouathar Hakim, Nidhal Ben Moussa, Hela M’saad, Fatma Ouarda, Rafik Boussaada

Background: Fetal heterotopic tachycardia is associated with a high risk of congestive heart failure, fetal hydrops and intrauterine death. Transplacental treatment by antiarrhythmic agents can improve prognosis dramatically.

Objectives: The aim of our study is to review the management and the outcome of heterotopic tachycardia in fetal patients treated in our center.

Methods: We reported 24 cases of heterotopic fetal tachycardia diagnosed and treated mainly with digoxin and/or amiodarone administered by the transplacental way.

Results: Twenty four fetal patients were studied, thirteen with supraventricular tachycardia, eight with atrial flutter and three with chaotic atrial tachycardia. Among them, eight fetuses were hydropic. All mothers were given an antiarrhythmic treatment by mouth. There were three intrauterine deaths. Digoxin monotherapy converted 6/8 non hydropic fetuses and 0/2 hydropic fetuses who died. Amiodarone monotherapy converted 4/6 including 2 hydropic fetuses with one intrauterine death. The association of digoxin and amiodarone converted 7/7 fetus including 3 hydropic patients. No death was found with this association. Propanolol was used in monotherapy or associated with digoxin in vain in three patients with chaotic atrial tachycardia.

Conclusions: Maternal oral antiarrhythmic treatment should be given as soon as the diagnosis of fetal heterotopic tachycardia is done. Digoxin and amiodarone seems to be effective. Their association is particularly indicated in hydropic fetuses.

http://dx.doi:10.1016/j.jsha.2013.03.108

Successful transcatheter closure of perimembranous ventricular septal defect with inlet extension using Amplatzer occlude device (ADOI)

Mashail Alobaidan, Abdalmajeed Alotay, Nabeel Abdulrazzaq

Introduction: Transcatheter closure of perimembranous ventricular septal defect (PM VSD) is abandoned in many center and in some became restricted to certain age and criteria because of the risk of complete heart block (CHB). The risk of damaging the tricuspid valve (TV) in the presence of inlet extension is another risk. I am presenting successful closure of such defect using Amplatzer occluder device for PDA with reasonable follow up period in Prince Sultan Cardiac Center PSCC.

Method: Through 2011 4 patients underwent transcatheter closure of PM VSD with inlet extension, all patients were consented and procedure were done under general anesthesia, Transesophageal echocardiography was done in all, one has 3D assessment Hemodynamics were assessed pre procedural, A–V loop was applied in 2 patients, ADOI were used in all,heparin and antibiotics were giving during and 24 h post procedure, 3 patients were extubated same day and one the following day, all patients were kept on aspirin for 6 months.

Result: Median age 17 kg, 3 female and 1 male, median age 7 year, Median ventilatory duration is one day, Median hospital stay is 2 days, Median Follow up is 16 months, No immediate or early complication or deaths, normal ECG immediately and during follow up period, normal Echocardiography with no residual leak during follow up period.

Conclusion: In selected patients with PM VSD and inlet extension ADOI device can be used safely and effectively to close the defect with no immediate or early complications.

http://dx.doi:10.1016/j.jsha.2013.03.109

Early experience on aortic arch surgery at King Fahd Armed Forced Hospital (KFAFH), Jeddah