HYPOXIC PERINATAL CARDIOMYOPATHY -DIAGNOSIS AND EVOLUTION-

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Background

Hypoxic perinatal aggression induces appearance of manifestations of myocardial suffering with the development of hypoxic cardiomyopathy and variable evolution, sometimes severe

Objectives:

present the main aspects of myocardial injury secondary to perinatal hypoxia, the diagnosis and evolution of hypoxic cardiomyopathy

Methods.

Patients: 88 newborns aged 0 - 14 days, with normal birth weight, with perinatal hypoxia(Apgar score 3 - 7), receveing resuscitation, but without major congenital heart diseases.
All cases were **investigated by:** •clinical exam, •ECG •chest X-ray (Rx.CT), •Doppler echocardiography (Echo). Most of patients were evaluated and after 6 months.

Results

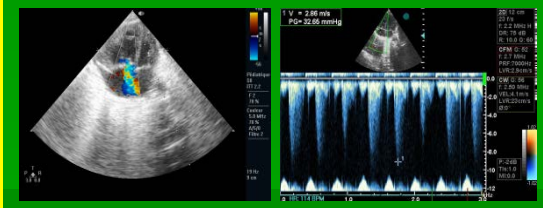
The patients had mainly signs of neurological post hypoxic suffering,only 8 cases signs of severe heart injury (cardiomegaly, respiratory distress,cyanosis,peripheric hypoperfusion), other cases: systolic murmur (64) and signs of PPHN (8 cases). Chest X-ray: cardiomegaly (32). ECG: severe left ventricle (LV) repolarization disturbances and low voltage of QRS complexes (37), without ischemic changes. Doppler echo exam at 2-7 days of life revealed: * the absence of other severe congenital cardiac anomaly; *permeability of foramen ovalae (100%) and forced foramen ovalae (gradient LA/RA> 8 mmHg); mild to severe tricuspid insufficiency and RV and RA dilation (29); sometimes right-left shunt through the FO *myocardial hypertrophy (42) mainly IVS(29), signs of PPHN(6); prolonged IVRT (35 cases), increased myocardial performance index (44 cases), the systolic dysfunction in 5 cases and severe LV diastolic dysfunction in 45 cases. All the cases received spironolactone 1-2mg/kg/day for 3 months. New evaluation at 6 months showed; reduction of the myocardial hypertrophy and of tricuspid regurgitation, normal LV systolic and diastolic function.

Echocardiographic imaging

V.P. 6 days. Post hypoxic hypertrophic cardiomyopathy

E/A < 1

A.V. 7 days. Echo Doppler color and spectral : tricuspid regurgitation



Conclusions.

The perinatal hypoxia can induce a important myocardial injury as transient post hypoxic hypertrophic cardiomyopathy at more than 66,5% of patients, the signs of cardiovascular suffering missing often. Echo is the main method for diagnosis and follow up of perinatal hypoxic cardiomyopathy and is necessary performed from the first week of life.