Introduction Congenital malformations are still a major cause of morbidity and mortality in newborns in Romania. The significant incidence and the difficulties of the management of this pathology are a reality which requires more attention and efforts.

Objective The aim of the study was to determine the incidence of congenital cardiac malformations (CCM) between 2000–2010, the risk factors and distribution of the CCM.

Material and method It was a retrospective study which included all the newborns with CCM who were admitted in our hospital. We had proceeded: clinical exam, laboratory tests, ECG, echocardiography.

Results From a total of 105968 children, 863 had congenital cardiac malformations (0.81%). The main risk factors were: teratogenic factors (diabetes mellitus and alcoholism), chromosomal defects, multifactorial transmission. The most frequent malformations were noncyanotic as atrial septal defects and ventricular septal defects (88.06%) vs cyanotic defects (11.95%). In most of the cases the diagnosis was established after birth and only 1.73% (n=15 cases) had prenatal diagnosis. The outcome of children was: 504 newborns (58.40%) had needed medical treatment but no surgical corrective procedures, 223 (25.84%) had had palliative or corrective surgical treatment and 136 (15.75%) had died because of complications or of the impossibility of a proper surgical treatment.

Conclusions The diagnosis of cardiac malformation is not a problem anymore due to echocardiography but, unfortunately, prenatal diagnosis is still difficult. The most cases are noncyanotic malformations. The outcome is related with the type of CCM, complications and possibility of a proper treatment.

Aim To evaluate factors influencing, and consequences of, PGE1 use in transport of infants with suspected DDCHD or persistent pulmonary hypertension (PPHN).

Methods Retrospective study of infants ≤10 days old with suspected DDCHD/PPHN transferred to the Royal Children’s Hospital, Melbourne, by NETS (Victoria) identified from transport and hospital databases.

Results Of 142 eligible infants, 81 had DDCHD, 51 had PPHN and 10 had neither. Diagnostic accuracy of DDCHD by transport team was 77%. PGE1 was commenced in 50% of infants, 63% of DDCHD group, and 19% of non-DDCHD group.

“Time critical” transfers were significantly associated with PGE1 use; transfer distance and air/land were not. PGE1 use was significantly associated with the presence of cyanosis, abnormal pulses and lower initial SpO2 and PaO2.

Ventilation and inotrope use during transfer were significantly higher in infants with DDCHD who received PGE1, than those who did not (both P 0.007). Use of PGE1 significantly shortened length of stay in PPHN but not DDCHD patients. There was no significant difference in death rates between PGE1 and no-PGE1 group.

Conclusions Although the ability of transport personnel to differentiate DDCHD from PPHN and correctly administer PGE1 was high, 35% of infants with DDCHD were transferred without PGE1. Cyanosis, abnormal pulses and initial hypoxemia influenced the decision to start PGE1. PGE1 may improve outcome in PPHN.

Background Transport of infants with suspected duct dependent congenital heart disease (DDCHD) represents a diagnostic and therapeutic dilemma, specifically in relation to use of prostaglandin E1 (PGE1) to maintain ductal patency.

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