



Prenatal diagnosis of congenital heart defects: Data from a tertiary Tunisian care center

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Objective

To determine the prevalence of diagnosis of CHD and to describe the population of newborns with the diagnosis of CHD.

Methods

We conducted a retrospective study in the department of neonatology of the Charles Nicolle Hospital of Tunis, over a 12 years period. We included all CHD diagnosed perinatally.

Results

Of 43561 births, 53 had CHD (48 live births and 5 still births), with an incidence of 1.21‰. The annual incidence ranges from 0.5‰ to 2.3‰. The sex ratio was 0.82. Most newborns were eutrophic (74%) and the prematurity rate was 8%. The maternal mean age was 32 years. In 89% of cases pregnancy follow-up was consistent with recommendations. Complex CHD accounted for 64% of cases. Atrioventricular septal defects were the most frequent anomalies (15/53) followed by tetralogy of Fallot (7/53), transposition of the great vessels (6/53), complete atrioventricular canal (5/53). CHD were associated with extra heart malformations in 22% of cases and with chromosomal aberration in 23% of cases. In 24.5% (13/53) of cases the diagnosis of CHD was prenatal with two cases of pregnancy termination. In 9/13 cases prenatal diagnosis was late, in the third trimester. Maternal diabetes history was found in 15 cases, two cases were related to congenital rubella. Mortality in the neonatal period was 27% (13/48).

Conclusion

In our population, prenatal diagnosis rate was only 24.5%. Most CHD occurred in pregnancies without or with low risk factors. We found a high mortality rate in newborns with CHD. Our findings highlight the importance of a routine midtrimester fetal ultrasonography, and emphasize the significance of prenatal diagnosis the significance of prenatal diagnosis to provide appropriate counselling to parents.