

**Recurrence of congenital heart disease in offsprings of mothers with congenital heart disease screened by fetal echocardiography**

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Introduction: Pregnant women with congenital heart disease (CHD) are at risk of recurrence. Preconceptional counselling is very delicate in this population and the data relative to the recurrence rates are of extreme use in this field.

Objective of the study: to analyze the recurrence of congenital heart disease (CHD) in offsprings of mothers affected with CHD.

Material and methods: Retrospective-prospective study of 310 pregnancies of 271 mothers with CHD studied by fetal echocardiography in our Center between Jan. 1995 and Dec.2015. Thirty nine women were followed-up during 2-3 pregnancies. Twenty seven women, all operated, had cyanotic CHD, in 34 pregnancies and 244 had acyanotic CHD, operated in 149, in 276 pregnancies. Thirty six had multiple familial risk (2-5 relatives)

Results: Twenty three probands had CHD (total recurrence rate  $23/310 = 7.4\%$  pregnancies), 1/34 pregnancies with cyanotic CHD (2.9%), 22/244 pregnancies with acyanotic CHD (9%).

When mother alone was affected, the recurrence was  $21/235 = 8.9\%$ ; when mother and another relative were affected the recurrence rate was  $2/36 = 5.5\%$ . The specific recurrence was higher in VSD ( $7/71 = 9.8\%$ ), ASD II (considered at age  $>1$ yr, diam. $>8$ mm-  $7/88 = 7.9\%$ ), aortic stenosis ( $3/34 = 8.8\%$ ), ductus arteriosus ( $1/12 = 7.7\%$ ) and in AVSD (2/4cases). Concordant lesions occurred in 9 cases, partially concordant in 7, discordant in 6 cases.

Conclusions: Our data confirm a relevant recurrence of CHD in affected mothers, despite the numerical limits of our population. This fact has to be taken in account in prenatal counselling.