Impact of prenatal diagnosis of the D-transposition of great arteries (TGA) on mortality

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Objective
To evaluate the impact of prenatal diagnosis on the mortality of d-TGA.

Methods
A retrospective study of 100 cases of d-TGA diagnosed prenatally and 69 diagnosed postnatally undergoing corrective surgery between 1999-2014. The influence of prenatal diagnosis on perioperative mortality was analyzed according to the type of d-TGA and year of birth.

Results
Most of the cases were simple d-TGA. The overall mortality was 7.1% (12/169). In all cases death occurred after corrective surgery due to myocardial ischemia and ventricular failure. No differences between cases with prenatal and postnatal diagnosis were observed. In stratified analysis, we observed that the benefit of prenatal diagnosis in reducing mortality was more evident in the simple d-TGA than in the complex d-TGA, and especially in the first eight years of the study. The lack of significance may be conditioned by the lack of control of prehospital hidden mortality in cases with postnatal diagnosis.

Conclusion
In our experience, the prenatal diagnosis of d-TGA is not accompanied by a reduction in hospital mortality. Only simple forms seem to have a trend to reduce the mortality, although this impact has been reduced in recent years, probably due to the widespread use of prostaglandins. The anatomy of the complex d-TGA avoids the sudden deterioration of the newborn in cases not diagnosed prenatally.