

Foetal dysrhythmias: a study in nine Spanish centres

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OBJECTIVE: To review current management and outcome of foetal arrhythmias in Spain.

METHODS: Retrospective multicentre study: analysis of all foetuses with dysrhythmia, as diagnosed by echocardiography, at 9 Spanish Hospitals between January 2008 and September 2010.

RESULTS: 123 pregnant women fulfilled the study criteria. The mean gestational age at diagnosis was 29 weeks.

The most common type of foetal arrhythmia was premature atrial contractions, leading to a benign prognosis.

52 of the foetuses studied showed sustained dysrhythmia of which 16 exhibited complete atrioventricular block (CAVB), 4 atrial flutter (AF) and 32 re-entrant tachycardia involving the atrioventricular node (SVT).

CAVB: One third of the patients presented with hydrops. 62% of the foetuses were treated with dexamethasone (18% in association with sympathomimetics). Dexamethasone did not improve the degree of blockage in any of the patients. The rate of mortality, mostly associated with ventricular dysfunction, was 21%.

AF: There was no case with hydrops. Two foetuses were treated successfully in utero (1 with digoxin and 1 with sotalol) and two foetuses diagnosed near term were cardioverted after delivery.
SVT: 21 non-hydrotic foetuses. Prenatal control of the tachycardia was achieved in 86% of the treated cases: digoxin monotherapy converted 50% of them, second line treatment were sotalol and flecainide. There was no mortality in this group.

SVT: 11 hydrotic foetuses: management strategies were highly diverse: digoxin, propranolol, flecainide, sotalol, amiodarone and direct foetal administration of adenosine. Six patients died (54%): 1 after delivery; 3 in utero very shortly after being evaluated at the tertiary care centre (mean time: 2 days); 2 in utero in spite of being successfully cardioverted to sinus rhythm (1 with sotalol, 1 with flecainide).

CONCLUSIONS: The management of foetal arrhythmia is still controversial, as shown by the diversity of treatments used in our study. Hydrotic foetuses with SVT showed significant mortality in our population, which calls for further studies and unification of criteria. This study is the first step towards the development of a common management strategy in Spain to optimize the outcome of foetal dysrhythmia.