Clinical research on fetal bradycardia

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Objective: Investigate the diagnosis and prognosis of fetal bradycardia. Methods: With the determinated of prenatal echocardiography and postnatal electrocardiogram, while the serum level of maternal anti-SSA/Ro and anti-SSB/La and status of maternal autoimmune diseases. Results: 47 cases of fetal bradycardia were enrolled, the gestational age were 18-34 weeks. Among them, there were 21 cases of III° AVB, 16 cases of sinus bradycardia, 8 cases of irregular bradycardia and 2 cases of I° AVB. Maternal autoantibodies positive were found in 26 mother; and to their fetuses, there were 17 cases of III° AVB, 5 cases of sinus bradycardia, 2 cases of irregular bradycardia. To the suffered fetuses, 17 cases were accompanied with cardiovascular malformation (12 cases of III° AVB, 3 cases of sinus bradycardia, and 2 cases of irregular bradycardia). The 2 cases of I° AVB (obviously prolonged A-V interval) in this study received prenatal dexamethasone therapy, halt the progress of heart block successfully and delivered two health babies. All the fetuses HR below 55bpm were terminated after prenatal diagnosis.

Conclusion: The prognosis of fetal bradycardia was poor, and some types of fetal bradycardia have closely relationship to connective tissue disease, especially maternal autoantibodies positive. Transplacental dexamethasone therapy for prolonged A-V interval may halt the progress of heart block and result good prognosis.