MATERNAL EXERCISE DURING PREGNANCY AND FETAL HEART RATE

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INTRODUCTION: An important quantity of investigations have valued the influence of the physical exercise during pregnancy on certain maternal and fetal parameters. Most of scientific studies have not found harmful effects in relation to the practice of moderate maternal exercise on the fetal growth and development (1). Nevertheless, relative to behaviour of the fetal heart rate (FHR) during the realization of maternal exercise certain controversy exists, a several investigations have studied this parameter obtaining varied results.

OBJECTIVE: To know the behaviour of FHR during realization of aerobic and moderate maternal exercise during the third pregnancy trimester.

MATERIAL AND METHODS: This investigation work has been elaborated by a collaboration between the Gynaecology and Obstetrics Service of Severo Ochoa Hospital (Madrid) and Universidad Politecnica de Madrid (UPM). The approval of the Committee of Investigation as well as of the Ethical Commission of the Hospital was obtained. Informed consent of each pregnant was obtained before developing the program of physical work.

Sample: 8 healthy pregnant women have been studied, in the last trimester, without complications in their pregnancy neither contraindications for the practice of physical exercise.

Exercise program: the exercise protocol consisted on a session of 30 minutes divided in three parts: a first entrance part (warm up), 5 minutes with soft and simple activation exercise, a central part of 20 minutes of moderate work in static bicycle, moderate criteria was observed taking into account a Borg Scale (between 12-14) and heart rate no more than 140 beats/min., and a third part, 5 minutes, of stretching and relaxation exercises (cold dawn).

RESULTS: Our results show increases (between 15 and 30 beats/min) of the FHR in all the studied cases. These increments don’t depend on the maternal age, smoking, neither of exercises habits previous to the gestation.

DISCUSSION: Some studies carried out about the relationship between exercise and the pregnancy found the elevation of the FHR like a normal answer of the fetus like adaptation to the modifications caused by the maternal physical exercise (2, 3). In a sense the fetus increases the FHR to be protected of the reduction of the maternal blood flow, reduction taken place by the attraction of the maternal blood by the muscles that are activated with the exercise.

CONCLUSION: maternal aerobic and moderate exercise developing during last trimester increments FHR in 15-30 beats/min.

REFERENCES:

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