

Fetal umbilical cord entanglement as stress-associated phenomenon

Nazarenko LG, Semerinskaja IA
 Kharkov Post-Graduate Medical Academy, Kharkov, Ukraine

Objective

To find out the frequency of FUCE occurrences and the resulting perinatal complications; to study FUCE association with heliobiological, medical, demographic and psychosocial factors within the setting of a clinical and epidemical study; to explore the condition of the fetal-placental complex and the possibility of the prognosis of the FUCE perinatal outcome; to reduce the frequency of negative outcomes attributed to the cord entanglement.

Methods

The study was conducted in three stages. The first stage was a randomized controlled study of population data based on 4, 074 labor and delivery records. The second stage surveyed a sample prospective observation study of 179 women after 32 weeks with uncomplicated singleton pregnancies (87 women with FUCE, 92 without FUCE). The third stage conducted a sample prospective observation study of 60 women at the end of the second or third trimester of diagnosed FUCE pregnancy. The index group A consisted of 34 women, who had undergone with special psychological support. The control group B consisted of 26 women, who had refused psychological support for various reasons.

Results

The link between the increase in the FUCE frequency and perinatal mortality level has been established. A strong inverse relationship between the annual ratio of births with FUCE and solar activity has been identified. Negative consequences of FUCE are more probable in certain clinical situations which have been identified. The analysis of the data of the psychological study showed that pregnancy with FUCE is a complex, stress-associated condition: a combination of the woman's psycho-emotional stress and the negative variants of childbirth motivation.

Conclusion

We have reasons to conclude that pregnancy with FUCE is a stress-induced phenomenon, which requires the application of a comprehensive diagnostic and prognostic analysis in addition to a psychological support system. We believe that the best option of FUCE prevention is the education of women before conception with the purpose of wanted, conscious motherhood.

