



## About the impact of connective tissue dysplasia as a risk-factor of perinatal pathology

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### Objective

One of the features of the health status in the population of the modern Ukraine is the high prevalence of connective tissue (CT) anomalies. They are most commonly identified as dysplasia as a consequence of genetic load under the influence of new social, anthropogenic factors (stress, inadequate food) and the environmental changes. It is suggested that the dysplasia of the connective tissue (DCT) is 100% dependent on adverse factors during the prenatal period, which allows considering that it is a dimorphogenetic phenomenon. Our goal is to evaluate the contributing links between complications during gestation and connective tissue abnormalities.

### Methods

This is a cohort study (2004-2008, 6585 observations) to assess the prevalence of the DCT in the Eastern Ukrainian region of Ukraine. We investigated the role of anomalies of the CT as a possible source of obstetric and perinatal pathology. In the second phase, using a case-control method we assessed the importance of DCT in the development of such forms of pathology: miscarriages and premature births, preeclampsia, premature detachment of the placenta, dystocia.

### Results

The rate of DCT among women of reproductive age reaches 30-33%, is more common in women living in cities and less frequent in rural areas. Therefore, DCT is a population characteristic of the modern generation of the region, as well as a qualification for enhancing the effect of dysplasia in subsequent generations. We found that in women with DCT typical mechanism for premature termination of pregnancy is the shortening of the cervix during the second trimester. DCT increases the relative risk of miscarriage when (4.34, DI -6.13.09). For DCT characteristics are the following types of pathology of pregnancy, which play a role in the pathogenesis of primary morpho-functional disorders of the utero-placental complex, breach of collagen synthesis. We established a higher frequency of premature detachment of the placenta (4.1% with regional frequency 0.5-5%), abnormal placental attachment, severe pre-eclampsia, obstetric trauma, and postpartum hemorrhage. Childbirth in women with DCT in 40% is complicated with premature rupture of membranes and a short latent phase of labor. To improve pregnancy outcome for mother and fetus in case of DCT angio protective drugs such as diosminum, gesperedinum, Ginkgo biloba improves the outcomes.

### Conclusion

DCT should be considered as a significant risk factor for perinatal pathology. Shortening of the cervix is the visceral marker of DCT during pregnancy. Using diosminum or gesperedinum or Ginkgo biloba or the combination of both during pregnancy provides better perinatal outcomes compared with a group of women who do not receive the treatment.