INTRODUCTION
The urgency of the problem of miscarriage in women with undifferentiated forms of connective tissue dysplasia is primarily due to the high prevalence that occurs in the general population up to 80%[1]. Miscarriages is the most common complication of the gestational process. Babies born at 23-27 weeks of gestation cause up to 50% perinatal mortality.

One of the significant factors in the genesis of prematurity is the syndrome of undifferentiated connective tissue dysplasia (UDCTD), which in women with cervical insufficiency (CI) of unknown origin is about 30%, and the frequency of premature birth (PB) with CI correction reaches 30%[2,3,4]. The main causes of PB in this case are rupture of membranes, chorioamnionitis, eruption of the suture on the cervix. It is known that in the human body connective tissue performs a structural, retaining, supporting, mechanical, homeostatic and immunological function[5,6,7].

Abnormal connective tissue structure in women with systemic tissue dysplasia is closely associated with disruption of both collagen synthesis and metabolism and changes in biodegradation. At defects of structure of collagen, elastin, glycopeptides, proteoglycans, fibroblasts there can be an inferiority of a connective tissue stroma of a uterus, and in particular an internal os of the cervix, leading to the CI.

Congenital defects of systemic connective tissue dysplasia are manifested by various stigmatization. Differentiated forms have pronounced genetic markers, undifferentiated forms are manifested by phenotypic markers.

Recently, there is no objection to progressive growth in populations of individuals with dysplastic phenotypes, which is considered as a result of anthropogenic factors[8,9].

It is undeniable that undifferentiated connective tissue dysplasia plays an important role in asymptomatic shortening and dilation of the internal os of the cervix, which contributes to premature birth[9].

Timely detection of dysplastic stigma will improve the diagnosis and prediction of miscarriages on the background of CI, which is of great scientific and practical importance.

THE AIM
Study of the relationship between cervical insufficiency and dysplastic stigma in miscarriages.

MATERIALS AND METHODS
80 pregnant women were examined at 23-27 weeks of gestation. Group I included 40 pregnant women with the threat of premature birth, with recurrent spontaneous...
miscarriage and correction of cervical insufficiency (CI) by using pessary in the anamnesis. Group II consisted of 20 pregnant women with the threat of premature birth and correction of CI by using pessary without the burden of recurrent spontaneous miscarriage, the control group of 20 almost healthy pregnant women. To study the condition of the connective tissue, which included a clinical evaluation of dysplastic stigmatization, the total level of glycosaminoglycans in the serum and excretion of oxyproline in the urine were determined.

Statistical processing of the obtained data was performed using the programs “Microsoft Excel. When using medical and statistical analysis, the mean values and error (M ± m) were calculated, and the probability of the difference between the groups was determined by the Student’s t-test.) All results were considered valid if p <0.01 for the survey results and p <0.05 in all other cases.

**RESULTS AND DISCUSSION**

The studies revealed phenotypic signs of dysplastic stigmatization (DS) in 39 (97.5 ± 2.5%) pregnant women of group I, in 18 (90.0 ± 6.9%) group II and in 4 (20.0 ± 9.2%) control. Ectodermal dysplastic stigmas were represented by subcutaneous venous plexus, blue sclera, visual disturbances, depigmentation, pallor, skin hyperplasticity, hemangiomas or telangiectasia, and stretch marks.

Among the skeletal stigmas should be noted asthenic body structure, posture disorders, hypermobility of the joints, sandal-shaped slit on the foot, abnormalities in tooth growth. Visceral phenotypic signs of dysplastic stigmatization are represented by renal dysplasia, abnormal forms of the gallbladder, mitral valve prolapse, open oval hole (d = 2.8 ± 1.3 mm), abnormal structure of the uterus, umbilical hernia.

The threshold of phenotypic stigmatization is significantly higher in groups I and II (p <0.05) than the control. Among pregnant women of groups I and II there was an increased excretion per day of oxyproline, which amounted to 60.2 ± 31.3 and 57.0 ± 23.1 mg / day, respectively, against the background of reduced total serum glycosaminoglycans, which did not differ significantly in groups.

The results of studies revealed among pregnant women at risk of preterm birth in cervical insufficiency a high frequency of dysplastic stigmatization, which may indicate molecular genetic mechanisms of development, collagenopathy in this obstetric pathology. According to modern ideas, the signs of undifferentiated connective tissue dysplasia (UDCTD) are considered as a condition caused by inhibition of the activity of enzymes.
of various parts of the mitochondrial, the essence of which is reduced to “mitochondrial dysfunction”[10].

It should be noted that the etiopathogenesis of the premature birth in women with cervical insufficiency on the background of UDCTD for which there are a number of reasons, namely: genetic predisposition to collagenopathy, metabolic changes, chronic inflammation of the female genitals, micronutrient deficiency[11,12,13].

According to our data in the I group of pregnant women the asthenic type of the constitution coinciding with data of other authors prevailed.[14,15]. Among other manifestations of bone pathology, the most common were joint hypermobility, posture disorders and abnormalities in tooth growth, which can be closely related to both disorders of phosphorus-calcium metabolism and magnesium deficiency[16,17,18].

Diagnostically significant markers of visceral manifestations of dysplasia were found: renal dysplasia, abnormal forms of the gallbladder, mitral valve prolapse, open oval hole, abnormal structure of the uterus. Along with visceral markers of dysplasia, ectodermal stigmas in the form of varicose veins, increased skin extensibility, depigmentation, the appearance of stretch marks and umbilical hernia during pregnancy were quite common in these patients. Among patients of groups I and II there was an increased excretion per day of oxyproline, which was 60.2 ± 31.3 and 57.0 ± 23.1 mg / day, respectively, against the background of reduced total levels of serum glycosaminoglycans, which did not differ significantly in groups, but significantly higher than the control group.

CONCLUSIONS

1. The most common gestational complication in women with UDCTD is the premature birth on the background of cervical insufficiency.

2. Improving existing and finding new diagnostic and therapeutic measures in pregnant women with UDCTD, will significantly reduce the risk of premature birth.

REFERENCES


ORCID and contributionship:
Tunzala V. Ibadova: 0000-0003-0113-8995 A,C
Vasyl V. Maliar: 0000-0001-9950-5014 B,D,F
Vitalii V. Maliar: 0000-0002-1310-535X E,F
Volodymyr V. Maliar: 0000-0003-0350-3255 D,F

Conflict of interest:
The Authors declare no conflict of interest.

CORRESPONDING AUTHOR
Tunzala V. Ibadova
Uzhhorod national University
1 Narodna sqr., 88000 Uzhhorod, Ukraine
tel: +380506303138
e-mail: tunzala.ibadova@uzhnu.edu.ua

Received: 17.11.2020
Accepted: 04.03.2021

A – Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis,
D – Writing the article, E – Critical review, F – Final approval of the article