

## "THE RELATIONSHIP BETWEEN CLINICAL MANIFESTATIONS AND MORPHOLOGICAL CHANGES IN THE PLACENTA WITH AMNIOTIC FLUID VOLUME DISORDERS"

**Nematova Yu. Sh.**

*Candidate of Medical Sciences, Associate Professor*

**Umarova N.M.**

*Candidate of Medical Sciences, Associate Professor*

**Reyimnazarova G.J.**

*Tashkent State Medical University*

**Abstract:** *Amniotic fluid is a vital component of the intrauterine environment, ensuring normal fetal development and protecting it from adverse external influences. Abnormalities in its volume—oligohydramnios and polyhydramnios—are considered significant markers of pregnancy pathology and are often associated with complicated gestational processes and adverse perinatal outcomes. Despite the widespread use of ultrasound diagnostic methods, clinical interpretation of changes in amniotic fluid volume requires a thorough understanding of the morphological state of the placenta as a key component of the fetoplacental complex.*

**Keywords:** *amniotic fluid, oligohydramnios, polyhydramnios, placenta, fetus, clinical and morphological parallels.*

### **Introduction**

Amniotic fluid plays a key role in ensuring normal intrauterine fetal development. Abnormalities in its volume—oligohydramnios and polyhydramnios—are considered manifestations of fetoplacental dysfunction and may indicate intrauterine hypoxia, inflammatory processes, or congenital fetal abnormalities. Despite the clinical significance of these conditions, their morphological basis remains poorly understood. Therefore, clinical and morphological comparisons of amniotic fluid volume abnormalities are essential.

### **The purpose of the work**

To establish the relationship between clinical manifestations of amniotic fluid volume disturbances and morphological changes in the placenta.

### **Materials and methods**

The study is based on an analysis of clinical data from pregnant women diagnosed with amniotic fluid volume abnormalities and the results of morphological examination of the placentas after delivery. Diagnosis of oligohydramnios and polyhydramnios was made using ultrasound with an assessment of the amniotic fluid index. The morphological examination included a macroscopic assessment of the

placenta (weight, size, condition of the membranes and umbilical cord) and histological examination using standard staining methods. The obtained morphological data were compared with the clinical course of pregnancy and perinatal outcomes .

### **Results**

An analysis of clinical data showed that abnormal amniotic fluid volumes are associated with a high incidence of pregnancy complications, including chronic intrauterine hypoxia, intrauterine growth retardation, and the risk of preterm labor. In cases of oligohydramnios, clinical signs of placental insufficiency, decreased fetal activity, and impaired uteroplacental blood flow were predominant.

Morphological examination of placentas with oligohydramnios revealed signs of chronic placental insufficiency, manifested by degenerative changes in the chorionic villi, stromal sclerosis, a decrease in the number of functionally active terminal villi, and microcirculatory disturbances. These changes reflect prolonged hypoxic exposure of the fetus and are consistent with the clinical picture of chronic intrauterine hypoxia.

In cases of polyhydramnios, the clinical course of pregnancy was often complicated by inflammatory processes, anemia in pregnant women, and signs of intrauterine infection. Morphologically, placentas in this group showed predominantly signs of an inflammatory reaction, including villous stromal edema, dilated intervillous spaces, and elements of compensatory placental hypertrophy. These changes indicate strain on the adaptive mechanisms of the fetoplacental complex.

Thus, a clear correlation was established between the clinical manifestations of amniotic fluid volume disturbances and morphological changes in the placenta. The data obtained confirm that changes in amniotic fluid volume reflect underlying structural and functional abnormalities of the placenta .

### **Conclusions**

Amniotic fluid volume abnormalities are accompanied by characteristic clinical manifestations associated with dysfunction of the fetoplacental complex. Morphological changes in the placenta in oligohydramnios and polyhydramnios vary in nature and reflect the specific pathogenesis of these conditions . Clinical and morphological comparisons allow for a more accurate assessment of the degree of placental insufficiency and the prediction of perinatal outcomes. Studying placental morphological changes associated with amniotic fluid volume abnormalities has important practical implications for improving the diagnosis and management of pregnancy.