## 16 - Miscellaneous

### PO-035 - (23988) - PLACENTAL MORPHOLOGICAL FEATURES IN PRETERM BIRTH: A CASE-CONTROL STUDY

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Increasing evidence suggests that abnormalities in placental development and structure play a central role in the pathogenesis of preterm birth. While histopathological studies have identified specific placental features linked to adverse outcomes, limited research has explored these associations in Central Asia. Addressing this gap, the present study aimed to assess placental morphological characteristics associated with preterm birth, while adjusting for potential confounding variables such as socioeconomic status and maternal medical history.

A case-control design was conducted involving 386 women from three regions of Kazakhstan, of whom 129 experienced preterm delivery. Data collection included structured surveys, review of medical records, and histological analysis of placental tissue samples. Multivariate logistic regression was used to identify independent predictors of preterm birth.

Morphological evaluation revealed significant alterations in the preterm birth group. Key findings included an increased prevalence of intermediate villi (AOR=3.874; 95% CI: 2.047–7.330), centrally located blood vessels within villi (AOR=38.651; 95% CI: 13.081–114.204), and marked thickening of the fibrinoid layer (AOR=7.957; 95% CI: 2.522–25.100). These features were independently associated with preterm birth after adjusting for confounding variables.

Significant placental morphological changes, particularly involving villous structure and vascular localization, are independently associated with preterm birth. These findings suggest a key role of placental pathology in the etiology of preterm delivery, beyond the influence of socioeconomic and clinical risk factors.

**Palavras-chave : preterm, pregnancy**