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Diagnostic and prognostic significance of circulating microRNAs for early diagnosis of gestational diabetes

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Gestational diabetes mellitus (GDM) is defined as any degree of carbohydrate intolerance, with onset or first recognition during gestation. GDM widespread is rising all over the world. The screening for glucose levels is recommended as a routine component of care for pregnant women. But additional biomarkers are needed to predict the status of gestational diabetes. MicroRNAs, a class of small noncoding RNAs demonstrated gene expression, can be found in many biological fluids such as serum ,plasma. We must focus potential use of microRNAs as biomarkers of disease and β cell dysfunction.

Purpose and objectives: The aim of the reaserch is to determine the Micro-RNA s which difference blood serum samples of the healthy pregnant women, from the blood serum sample of the pregnant women with the gestational diabetes mellitus.

Methods: There will be a sequential selection of 40 pregnant women with gestational diabetes, and 40 pregnant women without gestational diabetes will be screened.

Study group: pregnant patients diagnosed with gestational diabetes in the first and second trimesters of pregnancy.

Control group: patients without gestational diabetes in the first and second trimesters of pregnancy.

Expected results: Determination of circulating micro-RNAs in serum during gestational diabetes mellitus allows to determine their final involvement in pathogenetic mechanisms, in main function and regulation of b cells. Early detection of their circulation is Expected results:

Determination of circulating micro-RNAs in serum during gestational diabetes mellitus allows to determine their final involvement in pathogenetic mechanisms, in main function and regulation of b cells. Early detection of their circulation is potentially useful for early diagnose and prognose, early screening will be important to initiate adequate therapy to normalize blood glucose level. As result , unwanted complications and negative consequencies of pregnancy will reduce.

Significance: Avoid metabolic health problems and long-term complications. Associating gestational diabetes mellitus risk factors with newly discovered biomarkers will help prevent gestational diabetes mellitus complications during pregnancy.

Biography

Lali Lachashvili PhD candidate, student. Internal medicine specialist, emergency physician, intensive care physician. Currently studying the predictive value of microRNAs in the early diagnosis of gestational diabetes. The research is being conducted with the funding and support of the Shota Rustaveli National Science Foundation of Georgia. This creates new ways to improve healthcare. Creates a completely new approach to diagnosis and prevention. Also engages in educational activities at two international universities in the country.

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