Diabetes during pregnancy- A risk factor for the child to develop obesity?

Moa Nordin

Popular scientific review of Independent Project in Biology 2016, Biology Education Centre, Uppsala University.

Can the increased number of obese children be explained by the mother's health condition during pregnancy? That is what scientists are trying to answer. Today more people die from overweight than underweight and more than 42 million children under the age of five are overweight or obese. Some scientists suggest that gestational diabetes (GDM), diabetes during pregnancy, could increase the obesity risk for the child.

Diabetes is a common name for several conditions defined by high levels of glucose in the blood. Glucose is also called blood sugar and it is the main form of energy that our body uses to function. To be able to use this energy we are dependent on the hormone insulin. There are two types of diabetes, diabetes type I and diabetes type II. People whit diabetes type I are unable to produce insulin and therefor they cannot use glucose properly. People with diabetes type II are resistant to insulin or do not produce enough of it.

Gestational diabetes is a form of diabetes type II and a condition which only affects pregnant women. GDM is defined by high levels of glucose during the pregnancy. The cause of the condition is not well known, but there are research being made and scientists have identified some of the contributing factors important for development of GDM. An untreated GDM can be dangerous for both child and mother. There is strong evidence that children born by mothers with GDM are at an increased risk of developing obesity later in life. As with obesity, GDM is a complex condition and it has been difficult for scientists to find an answer to the question why these children are more likely to become obese and they have not yet come up with an answer. They are suggesting that it might be directly linked to the mother's weight or that it can be explained by the lifestyle that the child inherits from its parents. There are also scientists who believe that the explanation is directly linked to the physiological changes that occur within a woman with GDM.

Obesity is affecting the whole world and there are several studies published with the aim to understand and take control over the condition to improve the global health. Scientists agree that it is an important question to examine and that more research needs to be done to understand the complexity of this worldwide problem and to improve the health of mothers with GDM and their children.

More information

Nordin M. 2016. Löper barn till kvinnor med gestationsdiabetes en högre risk att drabbas av fetma?, Independent project, Biology, Uppsala University.