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The effect of lifestyle intervention in obese pregnant women; Follow-up on the off-spring in early childhood.

Introduction: Children born to obese women are at risk of adiposity and later adverse metabolic outcomes such as obesity. This contributes to a vicious cycle, in which prenatal programming plays a role. In recent years an increasing demand to find methods to alter the intrauterine environment to try and halt the cycle has emerged. On this note, we have conducted a follow-up study on an existing clinical trial, called the LiP study (Lifestyle in Pregnancy), in which 360 obese pregnant women were randomized to either lifestyle intervention or routine obstetric care. The present study, called the LiPO study (Lifestyle in Pregnancy and Offspring), follow the children until 3 years of age.

Aims: To determine the effect of lifestyle intervention in obese pregnant women in terms of markers of metabolic imbalances of the offspring at 2.5-3 years of age.

Methods: All eligible participants from the LiP study and their children along with a control group of 100 children born to mothers with a normal pregestational Body Mass Index were invited to our follow-up study. All participants received detailed questionnaires regarding dietary history, allergies, diseases, physical activity etc. at 1 and 2 years of age. A clinical examination of the children took place at age 2.5-3 years including anthropometric measurements, Dual energy x-ray scans and blood samples measuring metabolic markers.

Results: A number of 301 children from the LiP study were eligible and 157 consented to participate. Additionally 101 controls were included, making the total study population 258. Data collection is now completed and analyses are currently being conducted.

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