DIABETES

Low adiponectin levels before pregnancy linked with increased risk of gestational diabetes mellitus

A study recently published in *Diabetes Care* suggest that adiponectin levels could be used to identify women at risk of gestational diabetes mellitus (GDM).

An increased risk of type 2 diabetes mellitus has been linked with low levels of adiponectin. However, the relationship between adiponectin levels and GDM has

been unclear. Monique Hedderson *et al.* have now investigated this link.

The research team used a nested case-control design to evaluate 256 women who developed GDM; each case was matched with two control individuals who had normal blood sugar levels during pregnancy. Participants were members of the Kaiser Permanente Northern

California Multiphasic Health Check-up who had had serum samples taken before pregnancy.

“Having low levels of adiponectin before pregnancy was associated with a fivefold increased risk of developing GDM,” explains

Hedderson. The researchers also found that being overweight or obese and having low levels of adiponectin increased the risk sevenfold. Women with a normal weight and low levels of adiponectin were at a 3.5-fold increased risk. “This finding

is important as less is known about risk factors among normal-weight women who develop GDM,” says Hedderson.

Adiponectin levels can be increased with weight loss, dietary factors and medications. However, the authors suggest that more research is needed to identify how best to alter levels of adiponectin.

“The findings from this study emphasize the importance of the prepregnancy period in future pregnancy outcomes,” says Hedderson. Thus, interventions targeted at young women of reproductive age could reduce the incidence of GDM; however, the authors note that the effectiveness of these strategies is yet to be confirmed.

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Original article Hedderson, M. M. *et al.* Low prepregnancy adiponectin concentrations are associated with a marked increase in risk for development of gestational diabetes mellitus. *Diabetes Care* doi:10.2337/dc13-0389

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