Pregnancy linked to decreased insulin secretion in cystic fibrosis

The number of pregnancies per year reported in women with cystic fibrosis (CF) is on the increase. Studies have shown that insulin secretion decreases in CF patients, but this has not been previously investigated in pregnant women with CF. Hardin *et al*. therefore set out to investigate the metabolic effects of pregnancy in CF patients.

The authors recruited eight pregnant women with CF and compared them with two matched control groups—one consisting of nine pregnant women and the other consisting of eight non-pregnant CF women. Metabolic tests, such as the oral glucose tolerance test, hyperinsulinemic euglycemic clamp and hepatic glucose production were carried out on all participants.

During the second trimester, seven of the eight pregnant women with CF developed gestational diabetes mellitus. Insulin secretion was lower, protein catabolism and hepatic glucose production were higher in the CF pregnant group compared with the pregnant control group. Total weight gain throughout pregnancy was lower in women with CF compared with the control group.

Pregnant women with CF are at an increased risk of gestational diabetes mellitus, probably because of insulin resistance and abnormal substrate metabolism. The authors, therefore, recommend that pregnant women with CF be screened using the oral glucose tolerance test throughout pregnancy and also obtain nutritional guidance, in particular, to increase their calorie and protein intake.

Marie Lofthouse

Original article Hardin DS *et al.* (2005) The metabolic effects of pregnancy in cystic fibrosis. *Obstet Gynecol* **106:** 367–375

Oxyntomodulin—a novel treatment for human obesity

In this recent double-blind, placebo-controlled trial, oxyntomodulin showed evidence of efficacy for the treatment of obesity and might represent a much-needed novel therapy for the world-wide growing obesity pandemic.

In total, 29 volunteers with a stable BMI of between 25 and 40 kg/m^2 took part, of whom 16 were randomized to receive oxyntomodulin treatment and 13 to receive saline as the control group. Patients were eligible if they had no abnormal eating behavior. Injections of oxyntomodulin or saline were self-administered subcutaneously three times daily, 30 min after a meal, for 4 weeks. Participants were asked to maintain their normal diet and levels of physical exercise. Participants' weight and energy intake were assessed, and blood samples were taken to measure adipose hormones, at the start and end of the study.

A significant weight loss of 2.3 ± 0.4 kg was experienced by those receiving oxyntomodulin, compared with 0.5 ± 0.5 kg in the control group. The treatment group experienced significantly reduced plasma leptin levels and significantly increased adiponectin levels from baseline, compared with controls.

Wynne *et al*. suggest that oxyntomodulin causes weight loss partly because of a reduction in adipose tissue, which is shown by the decrease in leptin and increase in adiponectin plasma levels. The authors note that the weight loss experienced was consistent throughout the 4-week study, and conclude that the long-term efficacy of oxyntomodulin should be evaluated in future clinical studies consisting of larger numbers of participants.

Marie Lofthouse

Original article Wynne K *et al.* (2005) Subcutaneous oxyntomodulin reduces body weight in overweight and obese subjects. *Diabetes* **54:** 2390–2395

Plasma adiponectin levels do not predict the risk of CHD

Adiponectin regulates the metabolism of glucose, and concentrations of this hormone are known to be reduced in obese patients. Evidence has also shown that low levels of adiponectin are associated with diabetes and insulin resistance. Only one previously published prospective study, in men, has linked adiponectin with coronary heart disease (CHD); Lawlor *et al*. aimed to investigate whether there was an association between adiponectin and CHD in women.

Their prospective, 4-year study used data from the British Women's Heart and Health Study, which enrolled 4,286 randomly selected women without pre-existing CHD who were aged between 60 and 79 years at baseline. The authors identified 167 cases of incident CHD, and compared them with a randomly selected