Reviewer’s report

Title: Mild Gestational Diabetes in Pregnancy and the Adipoinsular Axis in Neonates born to mothers in the ACHOIS randomised controlled trial.

Version: 1 Date: 15 August 2006

Reviewer: Robert Fraser

Reviewer’s report:

General
This is an interesting sub group analysis from the ACHOIS study relating to changes in the adipoinsular axis in gestational diabetes with and without treatment. The study appears to have been well conducted and is of interest.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The main question of interest with the measurements that have been made is what lability is shown in these various metabolites in relation to events in labour. Both glucose and insulin for instance as far as the cord measurements at birth are concerned are susceptible to changes in maternal glucose levels during labour and the manipulation of glucose levels in particular by intravenous regimes which might be administered particularly to the treatment group women. Whilst cord insulin levels are of interest in the untreated group and the routine care group, in the treated group variation may be seen with treatment and maternal glucose levels in labour. I not know how labile cord serum levels of adiponectin and leptin might be but the authors should be invited to comment on this.

On a more general point the significance of fetal leptin levels seems to me to be quite uncertain I believe that placental leptin found in fetal blood may simply reflect placental volume and the authors should be invited to comment on this.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The authors should standardise throughout that what they are measuring here is cord blood or fetal levels whereas they tend to refer to levels in ‘neonates’ in the manuscript. Another query to authors relates to the units of serum insulin for example in Table 2 where they are given as micrograms/ml we think these are unsuitable units for the reporting of serum insulin and more conventionally this would be reported as micro units/ml and we wonder if this was the authors intention?

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I was a contributor to the main ACHOIS study.