Reviewer's report

Title: Elevated PDGF-BB Concentrations in Premature Neonates Who Develop Chronic Lung Disease

Version: 1 Date: 7 October 2003

Reviewer: Carl D'Angio

Reviewer's report:

General

1. Is the question posed by the authors new and well defined?
The question is new and well defined.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
The manuscript reports the use of appropriate methods to tackle the problem. The methods are adequately detailed, although it is unclear whether all of the appropriate assay controls were performed.

3. Are the data sound and well controlled?
The data appear to be sound and the control subjects appropriate.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
The authors do not make clear whether or not some of their subjects have had results reported previously.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
The discussion is balanced, but there are one or two points that bear further discussion.

6. Do the title and abstract accurately convey what has been found?
The title and abstract accurately reflect the content of the article.

7. Is the writing acceptable?
The article is well-written, focused and clear.

Discretionary Revisions (which the author can choose to ignore)

1. Figure 1. What post-hoc test was used to determine that days 4, 5 and 6 differed from the other days?

2. Figures 1 and 2. The levels of PDGF-BB fall to baseline by day 10, even in the subjects who develop CLD. This is despite the fact that active fibrosis is occurring at this time and thereafter in infants who are developing CLD. The authors may wish to comment on this in the Discussion.
Minor Compulsory Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. “Chronic lung disease” is misspelled on the abbreviation list.

2. Introduction, 2nd paragraph. The description of the effects of PDGF-BB is incomplete. For what cells is it chemotactic and a “competence” growth factor?

3. Methods. The sampling scheme could result in not every intubated subject being sampled at every day. This could cause variations in results from day to day as differing subjects were sampled. How frequently did this occur? Did it occur often enough to invalidate the assumptions of a repeated measures ANOVA?

4. Figure 2. There is an apparent drop in PDGF-BB levels at day 5 in subjects who later developed CLD. Are there factors (e.g. different subjects sampled) that may explain this?

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

1. The authors have published similar results for other cytokines and growth factors previously. Do the subjects reported here overlap with those reported previously?

2. Methods. The PDGF-BB ELISA described appears to be new. What steps did the authors take to document its sensitivity? Does the ELISA detect other PDGF isoforms? Is PDGF-BB detection ablated by pre-treatment of samples with a neutralizing antibody?

3. Results, 2nd paragraph. The authors report the incidence of detectable PDGF-BB concentrations in every group other than the healthiest group of children (survivors without CLD at 28 days). What proportion of these children had detectable PDGF-BB concentrations?

4. Figures. The authors should report the number of samples at each day in Figure 1, the number of samples per condition at each day in Figure 2, and the number of samples per condition in Figures 3 and 4.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests: None.