Reviewer's report

Title: High frequency of Human Cytomegalovirus DNA in the Liver of Infants with Extrahepatic Neonatal Cholestasis.

Version: 2 Date: 25 July 2005

Reviewer: GIOVANNI NIGRO

Reviewer's report:

General

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

The paper has been improved but still needs revision. Major point is that the authors repeatedly report (in the abstract, both in the results and conclusions, in the results, page 9 line 1, and in the discussion) that serology had a low accuracy, when compared to PCR results (which are considered by them 100% specific, like viral isolation). This consideration, and consequently the sensitivity and specificity of the serology, are based on erroneous calculations of the results.

RESULTS: page 9, line 1: compared to PCR, serology (IgM + IgG or IgG alone) had a specificity of 75% (9/12) but was more sensitive than PCR (65.7% versus 34.3% of the patients)

DISCUSSION
- page 9, line 17: seroprevalence is based on the presence of IgG, then the percentage was 65.7% (23/35)
- page 10, lines 5-10: the presence of IgM is related to a recent infection, while the biliary atresia occurred early in pregnancy: since the mean age of the patients was about 3 months, and maternal CMV antibodies are generally negative after 3 months, the development of atresia was CMV-associated more probably in the 3 infants with only IgG and PCR+ than in the 6 with IgM and PCR+ (in these infants, the presence of CMV DNA in the liver could have been simply due to circulation in the blood, according to the authors, during a perinatal or postnatal infection)

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

ABSTRACT: Results: Line 2: To evidence the discrepancy between serology and PCR, it should be included, after Nine liver and seven porta hepatis samples: from 12 infants, 9 of whom had IgG and/or IgM antibodies… Line 5: serology does not detect HCMV but antibodies

BACKGROUND: Line 16: Hepatic involvement (hepatomegaly) is frequent and clinical evidence of hepatitis (persistent jaundice and elevated and persistent aminotransferases) are occasionally found. Last line: (by ELISA systems)

METHODS: Serological investigations: specify manufacturers of the ELISA systems. Ethical Committee approval (last line): all infants'parents

RESULTS: page 8, line 7: mean interval (range?)
DISCUSSION: page 11, line 8: 3 PCR+ infants out of 12 ELISA negative are too many, thus it is better to avoid the word only

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Discretionary Revisions (which the author can choose to ignore)

**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:**

I declare that I have no competing interests