Reviewer's report

Title: Altered cardiac rhythm in infants with bronchiolitis and respiratory syncytial virus infection

Version: 1 Date: 15 September 2010

Reviewer: Luis garcia-Guereta

Reviewer's report:

It is interesting to read this paper that draws attention to basic problems of children with bronchiolitis and not usually available in medical reports: what happens in clinic with cardiovascular system in cases of bronchiolitis. The method used is quite complete: Holter monitoring, Echocardiography and laboratory data for a group of patients with non severe forms of bronchiolitis.

The data is well studied and conclusions are solid: transient sinoatrial blocks are frequently found in patients with RSV bronchiolitis studied by Holter.

I miss in the commentaries of authors the real importance of transient sinoatrial block. Transient sinoatrial block seems by their data not to be important and I miss a reference of current arrhythmia guidelines to make the reader understand the scope of the problem. I also would like to see a figure with the EKG findings with an explanation to the potential reader (pediatrician, family physician, students... There are reports that you quote on major arrhythmic problems in patients with bronchiolitis but none to sinoatrial block. Should it not be mentioned anywhere you should underscore it.

In lines 254 to 257 a connection to sudden infant death syndrome is made but really transient sinoatrial block is not a severe arrhythmia that may lead to death and it is not considered high risk arrhythmia that should you take actions to prevent sudden death (pacemakers or so).

As others have stated, and you have quoted, there is a risk of more important arrhythmias. After reading this article should we implement further monitoring in general wards of children with bronchiolitis?. That would change hospital habits in many places and probably prolong stays.

In regard to references you could include a recent one that is probably newer than your manuscript: “Respiratory syncitial virus and complete heart block in a child”. by Samuel Menahem. Cardiology in the Young 2010;20:103-104

In summary I think this article deserves publication with minor revisions. I would be happy if they take into consideration some of my advices, especially to include a figure with sinoatrial blocks and some explanation of how bad is to have a sinoatrial block in the course od an episode of bronchiolitis

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I do not have any conflict of interest