Reviewer's report

Title: Cough and reflux esophagitis in children: their co-existence and airway cellularity

Version: 1 Date: 6 October 2005

Reviewer: Alyn H Morice

Reviewer's report:

General
This is a prospective observational study of children undergoing endoscopy. The relationship between reflux oesophagitis, cough and airway cytology is explored.

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

The premise in this study that oesophageal reflux causing respiratory symptoms is related to biopsy proven reflux oesophagitis is at the heart of understanding this paper's conclusion. The authors effectively prove that this is not so. Given what we know already about reflux associated with respiratory disease this is hardly surprising, but the manuscript is written as if reflux oesophagitis is 'the gold standard' for reflux disease. Laryngopharyngeal reflux causing respiratory symptoms is poorly correlated to oesophageal inflammation. If the manuscript were altered to reflect this rather than to doubt whether reflux was associated with cough then it would be much nearer the truth. In fact the authors have no evidence that reflux is not associated with the patient's cough merely that the oesophagitis is not.

The discussion concerning reflux treatment is naïve. Most treatment has, up until recently, been designed to relieve the strongly acid related symptoms of heartburn. Treating laryngopharyngeal reflux is much less successful with proton pump inhibitors and the absence of treatment success does not mean that the symptoms are due to reflux.

The questionnaire deals only with classic symptoms of reflux and not with those symptoms known to be due to laryngopharyngeal reflux. Thus change in the quality of the voice is a well described symptom of LPR. Cough on lying down is ignored. Are symptoms at night predictive of reflux or not? The LOS closes at night and reflux cough diminishes.

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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)

Results are frequently expressed to two decimal places, surely this is overkill

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Discretionary Revisions (which the author can choose to ignore)

An interesting finding was the differential microbial culture from coughers and non coughers (why do the authors invent C+ C- when plain English would be more than adequate). They claim that it is very unlikely that this reflects aspiration and quote what looks like an abstract to support this. Whatever the evidence they show in that piece of work mechanically aspirating gastric contents may well not reflect BAL bacteriology since only certain bacteria prosper within the airways. Similarly the difference between paediatric and adult cough is referred to a paper in press and is thus unsubstantiated as far as this referee is concerned.
What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests: nil