Reviewer's report

Title: Development of functional gastrointestinal disorders after Giardia lamblia infection

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Reviewer: Peter Whorwell

Reviewer's report:

This study describes the apparent development of irritable bowel syndrome (IBS) in a cohort of patients who had previously suffered from infection with giardia lamblia.

General Comment

The findings described are of interest but the report does lack detail which many readers would feel should be included.

Specific Comments

1. Introduction: The first report of post-infective IBS was actually published more than twenty years ago by Chaudhary & Truelove in 1962.

2. Introduction: Post-infective IBS, and for that matter functional dyspepsia, have in fact been reported after other types of infection for example viruses and even protozoan parasites and this has not been mentioned. These observations obviously suggest that any form of gastrointestinal infection may result in post-infectious IBS and that problems following giardiasis might be anticipated.

3. Methods: We are told functional dyspepsia was sought after but not given any detail of how this was identified.

4. Methods: We are told some patients were re-biopsied one year later, but not informed whether the whole group was followed up. It would be very important to assess whether symptoms diminished or resolved over time and as they have recorded symptom scores should be possible to ascertain. This point is important because people with non-specific diarrhoea can develop persisting symptoms for a surprisingly long time after the initial event.

5. Methods: it would have been nice to have a control group to see how many people spontaneously developed symptoms over a similar period of observation.

6. Results: We are told most people denied previous abdominal illness before their infection. It would be important to know how this was established especially as it seems that many may not have consulted a doctor. Many people deny abdominal symptoms unless specifically asked about problems such as difficulties with bowel function or bloating which they may not have consulted about. This issue does not necessarily mean that the findings reported here are
irrelevant as gastrointestinal infections also make established IBS worse.

7. Results: They report that many patients claimed to be intolerant of milk. Lactase deficiency can follow gastrointestinal infections – did they undertake any lactose tolerance testing.

8. Discussion: There is a lot of interest in the role of low grade inflammation in IBS especially in relation to the post-infective variety of this condition.

9. Discussion: Antibiotics can lead to IBS and there is a literature on this which probably ought to be quoted. Presumably these patients were treated with antibiotics and this issue needs discussing.

10. Discussion: The authors dismiss female gender as a risk factor although I think (but I am not certain) that female gender has been reported as a risk factor.

11. Discussion: I have previously referred to a range of organisms being responsible for post-infective IBS, if the authors decide not to mention it in the Introduction it should certainly be covered in the discussion.

12. Discussion: The role of stress is dealt with very superficially. It would be worth discussing this in more detail in the light of previous data suggesting psychological factors predict the development of IBS following infection.

Other required comments:

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

An article whose findings are important to those with closely related research interests

English: Acceptable

I do not feel adequately qualified to assess the necessity for statistics.

I declare that I have no competing interests

Quality of written English: Acceptable

Declaration of competing interests:

I declare that I have no competing interests