Reviewer's report

Title: Simultaneous Atelectasis in Monozygotic Twins: Was it Plastic Bronchitis?

Version: 2 Date: 29 August 2013

Reviewer: Michael Seear

Reviewer's report:

Thanks for asking me to review this case history. As the authors point out, plastic bronchitis is a bit of a 'mixed bag' in terms of precipitating causes. However, once cardiac abnormalities, Sickle cell disease, chronic lung disease/bronchiectasis, poorly controlled asthma and rarities such as lymph drainage anomalies and ABPA are excluded, you are left with a group of acute cases that happen for no apparent reason (usually following a viral illness). The combination of bocavirus with twins isn't an everyday occurrence but the general picture of acute bronchial obstruction following a routine flu-like illness is not at all rare.

Depending on definitions used, minor forms are probably common. It was shown years ago that gastric lavage in children with viral illnesses reveals small bronchial casts in a high proportion of cases(1). Pediatric airways are so small that it is always surprising to me that occlusion from inflammatory exudates doesn't occur more often. I don't have exact numbers but we certainly have a few of these cases that need bronchoscopy in our own hospital every year.

These cases aren't vanishingly rare and the observation that there may be a familial basis to some cases is also not new; that point was made many years ago(2). The reason I make these points is that a case report has more value if it carries a clinical message - in this case a discussion of management suggestions. The fibrin and inflammatory infiltrate strongly suggest that this is an excessive inflammatory response to a routine viral infection. I could certainly accept that there is a genetic component. I would probably squeeze the child into the broad spectrum of asthma. However you classify them, the casual reader wants to know how you will manage them. There needs to be a message in any paper.

Acute bronchial casts are not entirely safe. I have seen two deaths from similar presentations over the years. My personal practice is to supplement the bronchoscopy with high dose steroids followed by inhaled steroids after discharge. This can certainly happen again with the next viral illness. Whether or not you agree with my own approach is not important - the main issue is that you discuss these issues in greater detail than simply asking if there might be a genetic origin.

My specific suggestions are:

a. This is a case report so the case description should be far tighter. Use the word limit to make important points.
b. Discuss your thoughts about cause - inflammatory response/asthma spectrum/familial element?

c. What do you suggest in terms of management - intravenous steroids acutely, inhaled steroids/ close management?

Best wishes,
Mike Seear


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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I have no competing interests