Respiratory Exacerbations in Post Infectious Obliterative Bronchiolitis

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Post infectious obliterative bronchiolitis (PIBO) is an unusual and rare complication of lower respiratory tract infections in children, with Adenovirus being the most common cause in the UK. The condition is non progressive and treatments mostly supportive. Little is known about the respiratory morbidity from frequent exacerbations of respiratory symptoms in these children.

Methods

We describe the frequency and symptoms during exacerbation of respiratory symptoms in a cohort of 12 patients for a mean 2.6 years after diagnosis. Diagnosis of PIBO was based on CT scan findings together with a suggestive clinical course. The exacerbations were classified as wheezy or infective based on the predominant symptom. Data on the types of symptoms and treatments given during these exacerbations were collected.

Results

Median age at diagnosis was 2yrs 4 months (age range of 3 months to 15 years). Most cases were post infective (80%) and the most common aetiologic agents were Adenovirus (60%), Rhinovirus (40%) and RSV (30%). Most patients were managed on long term anti-inflammatory therapy with Azithromycin and inhaled steroids. 5 patients were on home oxygen and 1 child was on supplemental enteral feeding. The mean time between outpatient follow-up was 3 months. There was a significant variability in the number of exacerbations ranging between 0 to 4 per year. Most children had infective exacerbations and these did not usually lead to hospitalisation. Most were treated with oral antibiotics usually Co-amoxiclav and less commonly Azithromycin. In the same individual the exacerbations are usually of the same types.

Conclusion

There is considerable heterogeneity in the presentation of children with exacerbations. We hypothesise that these may correlate with the extent of bronchiectasis radiologically. There may be an opportunity to improve outcomes by proactive antibiotic treatment if such a correlation can be studied in a larger cohort using a national database.