MANAGING CHILDREN WITH PROTRACTED BACTERIAL BRONCHITIS

H Abdelming, S Paul, Neonates, North Bristol NHS Trust, Bristol, UK
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Introduction It is important that health professionals consider a list of differential diagnoses when faced with a child with chronic cough (acute cough usually lasts less than three weeks). Potential causes include: asthma, cystic fibrosis, foreign body aspiration, anatomical abnormalities of the airways and other disorders. Studies have shown that children with chronic wet cough often have bronchitis and this is evident on bronchoscopy. Protracted bacterial bronchitis (PBB) is defined as persistence of isolated wet cough lasting more than four weeks and responding to antibiotic treatment. Diagnosis Clinical is achieved by presence of wet cough lasting ≥4 weeks. It is primarily a neutrophilic disease and presence of respiratory bacterial pathogens has been demonstrated in bronchoalveolar lavage. Prolonged course of oral antibiotics of 2–3 weeks is suggested as the initial therapy. Treatment is likely to result in symptom resolution and may minimise the risk of developing bronchiectasis. Chest X-ray may be performed in some cases and will be found to be normal in most instances. Sputum culture may also be sent in older children. Diagnosis may be confirmed by bronchoscopy with BAL followed by bacterial culture; however, such an invasive approach may not be deemed necessary or may not be readily available in most cases. Treatment The British Thoracic Society (BTS) advises using four to six weeks of oral antibiotics.1 In the absence of a bacterial culture a prolonged course of either amoxicillin or a macrolide antibiotic is suggested in most children with PBB.

Materials and methods It was performed a retrospective study of 100 medical records of inpatients with IRA hospitalised in 2012. Mean age of patients was 12.58 ± 1.09 months, including 2014; 66% of infants. Analysis included: clinical signs of disease onset, clinical outcome and cause of hospitalisation, laboratory tests, home and in hospital treatment, treatment compliance with guidelines. Results The most common syndrome at admission was fever (36% patients), but antipyretics were administered at lower levels than considered feasible, contrary to international guidelines.

In 93% cases were given anti-viral drugs, mucolytics, topical treatment, in 45% cases – antibacterial treatment. The antibiotics used at home were not according to local protocols in 31% cases. The average length of home treatment was 4.6 ± 0.3 days. Serum levels of leucocytes (8.9 ± 0.35 × 10⁹/l) at admission were not suggestive of bacterial aetiology. Antibacterial treatment was applied in all patients. Antibiotic was changed within the first 24 h in 35.3% of children, after 48 h of hospitalisation – in 14.7% children, and after 72 h or more – in 50% children. Unjustified polypharmacy was found in 51% cases.

Conclusion Antibacterial treatment of ARI is not always according national and international protocols, but there are divergences between national and international guidelines.