



Etiological Profile in Patients of Recurrent Pneumonia Aged 1 Month to 5 Years

Akanksha D. Srivastava¹ · Shally Awasthi¹

Received: 16 August 2021 / Accepted: 22 October 2021 / Published online: 12 November 2021
© Dr. K C Chaudhuri Foundation 2021

To the Editor: Recurrent pneumonia (RP) is defined as at least two episodes of pneumonia in 1 y/three episodes in any time frame, with intercritical radiographic clearing of densities [1].

The current case series was conducted from May 2019 to April 2020 with the aim to assess underlying etiology of RP in hospitalized children aged between 1 mo to 5 y, and to discuss a diagnostic approach that would help pediatricians to manage them.

During a one-year study period, 32 cases fulfilled the criteria of RP, and underlying etiology was found in 87.5%. Congenital heart disease with increased pulmonary blood flow was seen in 14 (43.7%) and recurrent aspiration due to velopharyngeal insufficiency in patients of cerebral palsy in 6 (18.8%); 4 patients (12.4%) were diagnosed with congenital structural anomalies, 2 (6.2%) with diaphragmatic hernia, and 1 (3.1%) each with diaphragmatic eventration and tracheobronchus; cystic fibrosis was diagnosed in 1 (3.1%), chest wall deformity due to rickets in 2 (6.2%), and bronchiectasis due to chronic infectious etiology in 1 (3.1%) patient.

Our approach to the case of RP was individualized, based on history, physical examination findings, and preliminary chest radiographic features. We planned 2D echo if history and examination findings were suggestive of congenital heart disease, and Contrast enhanced tomography/High-resolution tomography (CECT/HRCT) of the thorax in cases suspected to have structural anomaly or any parenchymal lung disease, cystic fibrosis, and immunodeficiency workup in clinically suspicious patients. Bronchoscopy was also planned in few cases in which CT thorax was inconclusive.

Studies conducted by other authors have also demonstrated underlying etiology in majority of their patients

[2–4]. RP is still a diagnostic challenge for clinicians. Our aim should be to find underlying etiology with minimum number of least invasive investigations.

Data Availability On reasonable request. Contact the corresponding author (SA) at shally07@gmail.com.

Declarations

Ethics Approval Approval of the Institutional Ethics Committee was obtained for this study (Reference code: 97th ECM 2 B—Thesis /p45).

Conflict of Interest None.

References

1. Wald ER. Recurrent and nonresolving pneumonia in children. *Semin Respir Infect.* 1993;8:46–58.
2. Saad K, Mohamed SA, Metwalley KA. Recurrent/Persistent pneumonia among children in upper Egypt. *Mediterr J Hematol Infect Dis.* 2013;5:e2013028.
3. Lodha R, Puranik M, Natchu UC, Kabra SK. Recurrent pneumonia in children: clinical profile and underlying causes. *Acta Paediatr.* 2002;91:1170–3.
4. Bolursaz MR, Lotfian F, Ghaffaripour HA, Hassanzad M. Underlying causes of persistent and recurrent pneumonia in children at a pulmonary referral hospital in Tehran. *Iran Arch Iran Med.* 2017;20:266–9.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ Shally Awasthi
shally07@gmail.com

¹ Department of Pediatrics, King George Medical University, Lucknow, Uttar Pradesh 226003, India