Unusual Pulmonary Hemorrhage in an Infant

S. M. Restrepo¹, C. A. Casas², M. Villamil³, J. Caceres⁴, O. Ramirez⁵, A. Diaz⁶, N. Olaya⁷; ¹Pediatric pulmonologist, Universidad Nacional de Colombia, Bogota, Colombia, ²Pediatric Pulmonology, Universidad El Bosque, Bogotá, Colombia, ³Bogota, Hospital De La Misericordia, Bogota, Colombia, ⁴Pediatrics. Intensive Care Unit, Fundacion Santafe, Bogota, Colombia, ⁵Pediatric pulmonologist, Universidad Nacional de Colombia, BOGOTA, Colombia, ⁶Pediatric rheumatologist, Hospital de la Misericordia, BOGOTA, Colombia, ⁷Pediatric pathologist, Universidad Nacional de Colombia, BOGOTA, Colombia.

Corresponding author's email: smrestrepg@unal.edu.co

Introduction: Pulmonary hemorrhage is rare in children. It is suspected in the presence of respiratory distress, anemia, hypoxemia and alveolar opacities on chest X-ray; Hemoptysis is not always present. It is a medical emergency that requires rapid identification, approach and treatment. Case: We report the case of a 15-month-old male infant with one day of progressive dyspnea associated with paleness and hypoxemia. He had 3 similar episodes since 11 months, where he received treatment for pneumonia and red blood cell transfusions. Initially they suspected Heiner's Syndrome and initiated a dairy-free diet but recurrence of the symptoms persisted. At admission he is tachycardic, generalized paleness, without other findings. Hemoglobin 6.5 gr/dL, a direct Coombs test was negative and chest X-ray had bilateral diffuse alveolar opacities. Diffuse Alveolar Hemorrhage was diagnosed. Methylprednisolone 30 mg/kg/day was given for 3 days and red blood cells were transfused. Paraclinics did not suggest pneumonia or immunodeficiency, studies of autoantibodies (DNAds, ENAs, ANCAS, ANAs, C3, C4) were negative. Chest tomography only showed diffuse alveolar occupation. Fibrobronchoscopy was normal with bronchoalveolar lavage hemorrhagic without hemosiderophages. Pulmonary biopsy showed focal capilaritis and alveolar hemorrhage. Immunohistochemical study was negative for IgA, IgG, IgM, C3, C4, C1q and fibrinogen, ruling out autoimmune etiology. Additionally studies showed TST 6 mm, serial smears and GeneXpert MTB/RIF were negative for tuberculosis. RAST were negative for allergens. Bone marrow, esophagus and colon biopsy were normal. Heiner Syndrome was ruled out as no evidence of food allergy. He was diagnosed with non-autoimmune pulmonary capilaritis. Prednisolone (1mg/kg/day) and Isoniazid (10 mg/kg/day) was given for 9 months for latent tuberculosis. Patient developed a Health Care-Associated Pneumonia complicated by pleural effusion, treated with Cefepime plus Clindamycin for 14 days and thoracostomy. He presented anemization secondary to infectious process requiring transfusion of red blood cells. Due to corticosteroid refractoriness, Azathioprine was added with satisfactory clinical and radiological evolution. The patient was discharged after 2 months of hospitalization, with prednisolone + azathioprine without supplemental oxygen. Conclusions: Alveolar hemorrhage can occur with or without capilaritis. Capillaritis may or may not be associated with autoimmune diseases. After excluding other causes it is considered idiopathic as in our patient. Management includes corticosteroids and other immunosuppressants in pulses or in combination for a long time. Patients may have relapses.