The classical triad (anemia, hemoptysis, and pulmonary infiltrates) was found from early in the disease in only 4 patients. The majority of patients' disease was diagnosed by bronchoalveolar lavage, and 3 were diagnosed at necropsy. Eight patients died in a period of 1 to 3 years from the diagnosis. The clinical course was variable: treatment with corticosteroids alone was not effective because 12 patients continued to have recurrent bleeding. Three patients who received immunosuppressive agents had a better outcome.

CONCLUSIONS: IPH is a severe condition with variable prognosis and has a better outcome when diagnosis is made at an early age. We believe that it is necessary to include in the screening of any severe, recurrent, hypochromic anemia a well-interpreted chest radiograph and to look for hemosiderin-laden phages in bronchoalveolar lavage.

BLOOD LEVELS OF INTERFERON γ IN NEWBORNS AND CHILDREN WITH OR WITHOUT RESPIRATORY PATHOLOGY

Submitted by Juan Peuchot
Juan Peuchot, Paula Prebianca, Maria Valeria Contrera, Angel Cedrato
Hospital Eva Peron De San Martin, Buenos Aires, Argentina

INTRODUCTION: There is evidence that long-term exposure to bacterial endotoxins at an early age is related to a protective effect for the development of allergic sensitivity. The endotoxin would be a powerful inductor of type I cytokines. Interferon γ (IFN-γ) would regulate the production of type II cytokines. There would be an increase of interleukin 4 and a decrease of IFN-γ in the airway and peripheral blood.

OBJECTIVE: The objective of this study was to determine in blood the levels of IFN-γ, immunoglobulin E, and eosinophil count in newborns and children with or without recurrent wheeze.

METHODS: Fifty-one newborns were recruited. The sample was processed through enzyme-linked immunosorbent assay method to determine levels of IFN-γ. In addition, 53 children with or without recurrent wheeze were recruited as well as 53 healthy children.

RESULTS: A total of 157 patients divided into 3 groups were analyzed. Group A: 51 newborn patients; group B: 53 patients who had recurrent wheeze and were aged 4 to 10 years; group C: 53 patients who had no history of wheeze and were aged 4 to 10 years. The average value of IFN-γ in children with a history of wheeze was 0.48 UI/mL. They had average values of immunoglobulin E of 7.89 and eosinophils of 9%. Children without history of wheeze had average values of IFN-γ of 0.91 UI/mL; newborns had average values of IFN-γ of 1.10 UI/mL.

CONCLUSIONS: IFN-γ could be used as an early diagnostic marker in atopic diseases.

INTRAVENOUS MAGNESIUM FOR TREATING ACUTE EXACERBATIONS OF ASTHMA IN CHILDREN: A SYSTEMATIC REVIEW

Submitted by Oliver Rackham
Oliver Rackham, Fauzia Paize
Arrowe Park Hospital, Wirral, United Kingdom

INTRODUCTION: Inhaled bronchodilators and systemic corticosteroids are the mainstay of treatment for acute exacerbations of asthma. A systematic review of the use of magnesium has been published, but the results are incomplete and the recommendation is "weak."

OBJECTIVE: The objective of this study was to determine the effect of intravenous magnesium in children with acute asthma.

METHODS: Randomized, controlled trials were identified by searching the Cochrane, Medline, Embase, CINAHL, and ProQuest databases. Other sources were used to identify "gray literature." Randomized, controlled trials in which children with an acute exacerbation of asthma were treated with intravenous magnesium versus placebo were included. Data were extracted from the full papers, and methodologic quality was assessed using a scale from 0 to 5.

RESULTS: Six studies involving 215 patients were included. Hospital stay was reduced in the magnesium-treated group. The percentage improvement in the percentage predicted peak expiratory flow rate was 43.5% greater in the treatment group. Significant differences were also seen in the forced expiratory volume in 1 second (weighted mean difference: 74.5%) and the forced vital capacity (weighted mean difference: 64.5%). There was improvement in asthma scores in 3 of the 4 studies that reported this outcome. There were no clinically significant differences in vital signs. No major adverse events were reported.

CONCLUSIONS: Intravenous magnesium is safe and beneficial as adjuvant therapy in the treatment of children with moderate to severe acute asthma. Magnesium should be for children who have moderate to severe acute exacerbations of asthma that do not respond to nebulized β-2 agonist.

DIAGNOSTIC BRONCHOALVEOLAR LAVAGE FOR PULMONARY FUNGAL INFECTIONS IN CRITICALLY ILL CHILDREN

Submitted by Malak Shaheen
Maged Ashraf[a], Alyaa Kotby[a], Malak Shaheen[a], Hadia Basim[b], Ahmed El Masry[c], Mervat Mansour[a]
[a]Pediatric Department, [b]Clinical Pathology Department, and [c]Pulmonology Department, Ain Shams University, Cairo, Egypt

INTRAVENOUS MAGNESIUM FOR TREATING ACUTE EXACERBATIONS OF ASTHMA IN CHILDREN: A SYSTEMATIC REVIEW

Oliver Rackham and Fauzia Paize

Pediatrics 2008;121;S159
DOI: 10.1542/peds.2007-2022EEEEEEE

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

INTRAVENOUS MAGNESIUM FOR TREATING ACUTE EXACERBATIONS OF ASTHMA IN CHILDREN: A SYSTEMATIC REVIEW

Oliver Rackham and Fauzia Paize

Pediatrics 2008;121;S159
DOI: 10.1542/peds.2007-2022EEEEEEE