Submitted by Qiu Li
Qiu Li, Ping-li She, Jia Chen, Wei Zhang
Children's Hospital, Chongqing Medical University, Chongqing, China

INTRODUCTION: Henoch-Schönlein Purpura (HSP) is a common vasculitis in children, and the unbalance of T-helper 1/T-helper 2 plays an important part in its pathogenesis. Mannose-binding lectin (MBL) is an important component of innate immunity and related with a lot of diseases with immunologic derangement. However, we do not know the relationship between MBL and HSP.
OBJECTIVE: We aimed to explore the serum level and gene polymorphisms of MBL and the levels of interleukin 10 (IL-10), IL-12, and IL-18 in supernatant of peripheral blood mononuclear cells of children with HSP and HSP nephritis (HSPN) and of healthy children.
METHODS: The concentrations of MBL and IL-10, IL-12, and IL-18 were measured by enzyme-linked immunosorbent assay: *MBL* gene polymorphisms were analyzed by polymerase chain reaction-restriction fragment length polymorphism and polymerase chain reaction with sequence-specific primers.
RESULTS: The serum MBL levels in the 23 children with HSP were not significantly different from 27 children with HSPN ($P = .95$) or 18 normal children. The levels of IL-18 in the supernatant of peripheral blood mononuclear cells in the 3 groups were not significantly different from each other ($P = .47$, .15, and .14). The levels of IL-10 in children with HSP and HSPN were not different from each other ($P = .70$), but both were significantly different from those in the normal children ($P = .04$ and .01). The levels of IL-12 in children with HSP were different from those in the children with HSPN ($P = .04$). The MBL promoter genotype and the frequency of alleles were not different between the children with HSP and HSPN or between those 2 groups compared with the normal group.
CONCLUSIONS: IL-12 probably plays an important role in the renal involvement in HSP. The position of MBL in the pathogenesis of HSP and HSPN remains to be confirmed.

RESPIRATORY SYNCYTIAL VIRUS INDUCED MORE SERIOUS INFECTION AND INFLAMMATION IN NUDE MICE THAN IN BALB/c MICE

Submitted by Juan Zhou
Juan Zhou, Xi-Qiang Yang, Zhou Fu, Xiao-Dong Zhao, Li-Ping Jiang, Li-Jia Wang, Yu-Xia Cui
Department of Immunology, Children's Hospital, Chongqing Medical University, Chongqing, China

INTRODUCTION: Respiratory syncytial virus (RSV) infection is ubiquitous and leads to severe disease in immunocompromised individuals.
OBJECTIVE: Our goal was to compare RSV infection and inflammation between immunocompetent BALB/c mice and immunodeficient nude mice.
METHODS: Pulmonary viral titers, histology, immunohistochemistry for CD14 and CD56, leukocyte counting, and cytokines were assayed by enzyme-linked immunosorbent assay in bronchoalveolar lavage fluid.
RESULTS: RSV titers peaked on the third day after inoculation in both types of infected mice. Infected nude mice had higher-level and more durative viral replication, more severe pulmonary histopathology, and a larger number of leukocytes in bronchoalveolar lavage fluid than infected BALB/c mice. Infected nude mice displayed more pulmonary ($CD14^+$) macrophages (114.34 ± 20.24 vs 75.46 ± 12.37; $P = .05$) and ($CD56^+$) natural killer cells (37.87 ± 8.07 vs 11.06 ± 5.37; $P = .05$) than infected BALB/c mice. RSV infection enhanced production of tumor necrosis factor α, interleukin 12 (IL-12), interferon γ, and IL-10 in both types of mice. Infected nude mice had a higher level of tumor necrosis factor α (40.30 ± 7.34 vs 24.24 ± 9.54; $P = .05$), IL-12 (83.96 ± 12.32 vs 68.21 ± 7.42; $P = .05$), and IL-10 (125.01 ± 18.97 vs 77.56 ± 9.01; $P = .05$) than infected BALB/c mice.
CONCLUSIONS: RSV-infected nude mice are a good model for assessing severe and persistent infection in individuals at high risk. RSV-induced inflammation is not parallel to the immune response of T cells, and macrophages and natural killer cells contribute to severe infection and inflammation of RSV-infected cellular-immunodeficient individuals.

Infectious Diseases

DIAGNOSTIC VALUE OF IN SITU POLYMERASE CHAIN REACTION IN CHILDHOOD LEPROSY

Submitted by Rajeshwar Dayal
Rajeshwar Dayal[a], S. P. Singh[a], P. P. Mathur[a], V. M. Katoch[b], K. Katoch[b], M. Natrajan[b]
[a]Department of Pediatrics, S. N. Medical College, Agra, India; [b]National Jalma Institute for Leprosy and other Mycobacterial Diseases, Agra, India

OBJECTIVE: Our aim was to assess the diagnostic value of in situ polymerase chain reaction (PCR) in leprosy, particularly for enhancing histopathological diagnosis.
METHODS: We prospectively studied 20 children (aged <16 years) with leprosy. Clinical examination of each case was performed, and skin smear for acid-fast bacillus was prepared. A biopsy of the lesion site was performed

RESPIRATORY SYNCYTIAL VIRUS INDUCED MORE SERIOUS INFECTION AND INFLAMMATION IN NUDE MICE THAN IN BALB/c MICE

Juan Zhou, Xi-Qiang Yang, Zhou Fu, Xiao-Dong Zhao, Li-Ping Jiang, Li-Jia Wang and Yu-Xia Cui

Pediatrics 2008;121;S126
DOI: 10.1542/peds.2007-2022HHHH

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

RESPIRATORY SYNCYTIAL VIRUS INDUCED MORE SERIOUS INFECTION AND INFLAMMATION IN NUDE MICE THAN IN BALB/c MICE

Juan Zhou, Xi-Qiang Yang, Zhou Fu, Xiao-Dong Zhao, Li-Ping Jiang, Li-Jia Wang and Yu-Xia Cui

Pediatrics 2008;121;S126
DOI: 10.1542/peds.2007-2022HHHH