

## Clippings

□ Can we prevent the development of asthma in high-risk infants such as those with a positive family history of the disease? So far trials using avoidance of any one of the risk factors did not show any significant benefit. The Canadian Childhood Asthma Primary Prevention Study aimed to determine the effectiveness of a multifaceted intervention program in children followed up to 7 years of age. Among the 545 high-risk infants with an immediate family history of asthma and allergies who were prospectively randomized into intervention or control groups prenatally, several intervention measures that were introduced before birth and during the first year of life included avoidance of house dust, pets, and environmental tobacco smoke and encouragement of breast-feeding with delayed introduction of solid foods. Assessment of outcomes at 7 years consisted of examination by pediatric allergists, methacholine inhalation tests, and allergy skin tests showed asthma was significantly lower in the intervention group than in the control group although the prevalence of allergic rhinitis, atopic dermatitis, atopy and bronchial hyperresponsiveness were not significantly different between the 2 groups. The prevalence of asthma was also significantly lower in the intervention group compared with the control group. *J Allergy Clin Immunol* 2005; 116: 49-54.

□ Can Orlistat provide significant benefits in weight reduction in obese adolescents in addition to diet, exercise and behavioural modification? A multicentric randomized double blind trial conducted upon 539 obese adolescents (aged 12-16 years; body mass index [BMI] 2 units above the 95th percentile) at 32 centers in the United States and Canada mea-

sured the change in BMI as the primary outcome measure and secondary measures included changes in waist and hip circumference, weight loss, lipid measurements, and glucose and insulin responses to oral glucose challenge. Orlistat was given for a period of 1 year in addition to the standard weight reduction methods. The results showed that there was a decrease in BMI in both treatment groups up to week 12, thereafter stabilizing with orlistat but increasing beyond baseline with placebo. However the treatment group had mild to moderate gastrointestinal tract adverse events in 9% to 50% of the as compared to 1% to 13% of the placebo group. Further studies are needed in adolescents before its use can be safely recommended. *JAMA* 2005; 293: 2873-2883.

□ The optimal management of childhood acute lymphoblastic leukemia (ALL) with hyperleukocytosis is unclear, and the risk of leukostasis-related complications is poorly characterized. A review of 178 children with untreated ALL who presented with hyperleukocytosis (counts  $>200 \times 10^9/L$ ) at St. Jude Children's Research Hospital, showed that while 16% of these children had CNS complications and overall 2% (4 patients), all with initial leukocyte counts  $>400 \times 10^9/L$ , suffered a CNS hemorrhage. Pulmonary leukostasis occurred in 11 patients (6%) and the degree of hyperleukocytosis was significantly predictive of neurological ( $P = 0.006$ ) and respiratory ( $P = 0.014$ ) complications. Cytoreduction therapy can delay the initiation of chemotherapy, therefore the authors recommended that it should be considered for patients with leukocyte counts  $>400 \times 10^9/L$  or patients who have complications at presentation. *Pediatr Blood Cancer* 2005; 45: 10-15.

□ Can screening for glucose intolerance among adolescents help us to identify those with Diabetes mellitus? In a population-based study of primarily African-American/Non-Hispanic whites in an urban-suburban school district who were screened with measurement of fasting and 2-hour post-glucose load plasma glucose concentrations, carbohydrate intolerance (CI) was identified in 8.0%, near-diabetes (1 fasting glucose  $\geq 126$  mg/dL and/or 2-hour glucose  $\geq 200$  mg/dL) in 0.3%, and diabetes in 0.36% (type 1A = 0.24%; type 2 = 0.08%; undiagnosed type 2 = 0.04%). Regression analysis in the CI/near-diabetes group and logistic regression in the entire study population showed that the risk factors for the development of CI/near-diabetes included having a 1 unit increase in body mass index (BMI) z-score and either being non-Hispanic white or in the pubertal group. Increased fasting glucose correlated with having puberty and decreased BMI z-score, whereas 2-hour glucose correlated with increased BMI z-score. The authors concluded that the adult model of the progression of insulin resistance to type 2 diabetes mellitus in adolescents may be valid and despite increase in the overweight population since NHANES III, abnormalities in glucose metabolism have not changed significantly. *J Pediatr* 2005; 146: 751-758.

□ The diagnosis of children with lower respiratory tract infections (LRTI) with the help of rapid viral diagnostic assays may help guide the treatment decisions and antibiotic usage in a more rational manner. An analysis of 282 nasopharyngeal aspirates from children clinically diagnosed as suffering from acute LRTIs using direct fluorescein-labeled monoclonal antibody assay showed that Influenza A and B were identified in 22 (7.8%), and 4 (1.4%), parainfluenza 1, 2, and 3 in 9 (3.2%), 4 (1.4%), and 1 (0.4%), respectively, and adenovirus in 4

(1.4%) cases. Influenza and parainfluenza viruses were noted more in patients below the age of 1 year and the presence of bronchiolitis, coughing, and tachypnea were significantly more frequent in infants with influenza infection. An understanding of the epidemiology of lower respiratory tract infections in the community is essential for providing optimal management. *J Trop Pediatr* 2005; 51(3):160-165.

□ Can aggressive initial fluid management of children with Dengue Shock Syndrome (DSS) affect its overall outcome in terms of morbidity and mortality? A retrospective analysis of 114 children admitted to PICU with a diagnosis of DSS managed as per the WHO protocol (W group) were compared to 96 cases managed by a study protocol (P group). The authors found that although the two groups were comparable in terms of age, Pediatric Risk of Mortality, and number of children with dengue hemorrhagic fever grade IV, but the platelet counts were higher in the W group as compared with the P group ( $p < 0.05$ ). Patients in the W group received less fluids in the first hour compared with the P group (median 20 mL/kg vs. 30 mL/kg) and fluid was actively removed less often in the W group than the P group. However, there was no difference in the need for ventilation or incidence of acute respiratory distress syndrome (ARDS) between groups, but among DHF grade IV patients, the number requiring ventilation and the incidence of ARDS were significantly greater in the W group compared with the P group. The duration of ventilation and length of intensive care unit stay were significantly less in the W group. *Pediatr Crit Care Med* 2005; 6: 412-419.

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