

Clippings

□ Most individuals with constitutional deletions of chromosome 18q have developmental delays, dysmyelination of the brain, and growth failure due to growth hormone deficiency. The effects of growth hormone treatment was evaluated on 23 individuals for changes in growth, nonverbal intelligence quotient (nIQ), and quantitative brain MRI changes. Over an average of 37 months, the treated group of 13 children had an average nIQ increase of 17 points, an increase in height standard deviation score of 1.7, and significant change in T1 relaxation times in the caudate and frontal white matter. Cognitive changes of this magnitude are clinically significant and are anticipated to have an effect on the long-term outcomes for the treated individuals. Growth hormone benefits children with 18q deletions. *Am J Med Genet A* 2005 ; 137: 9-15

□ The role of physical activity and eating behavior in weight control 1.5 y after a weight-reduction programme was evaluated in severely obese children. Forty-seven children (13.4 +/- 2.1 y) were measured 1.5 y after the completion of a 10-mo residential treatment program. Stature and body mass were measured; physical activity, fat and fibre intake, and self-efficacy in relation to physical activity and healthy eating behavior were assessed using validated structured interviews. The total sample was divided into four subgroups according to unhealthy versus healthy physical activity and eating behavior at follow-up. The four subgroups did not differ in level of overweight at the beginning or end of treatment. At follow-up, there was a significant difference in overweight between the four subgroups ($p < 0.05$). The least healthy group

(unhealthy physical activity and unhealthy eating behaviour) had a significantly higher level of overweight 1.5 y after treatment (183 +/- 36%) in comparison with the other groups (unhealthy physical activity and healthy eating: 150 +/- 21%; healthy physical activity and unhealthy eating: 156 +/- 14%; healthy physical activity and healthy eating: 138 +/- 16%) ($p < 0.05$), whilst the healthiest group showed the lowest level of overweight after treatment when compared to the other groups ($p < 0.05$). Results suggest that both physical activity and nutritional habits play an important role in weight maintenance after initial weight loss in obese children and that one healthy behavior can not compensate for another unhealthy behavior. *Acta Paediatr* 2005; 94: 464-470.

□ The human body is assuming new meanings and value. When tissue, such as hair, blood and saliva is subjected to DNA analysis, detailed intimate information can be revealed about a person that may predict information about behavioural traits and future disorders. Such genetic information may lead to the development of beneficial therapeutic treatments, but it may also lead to employment or insurance discrimination. Human tissue is commonly used by law enforcement agencies to detect perpetrators of crimes and to identify corpses. There are many sources of such tissue samples. One is from samples routinely collected from newborn babies for a test known as the "Guthrie test" or heel prick test. At about two days of age the child's heel is pricked and the resultant drops of blood are applied to filter paper attached to a test card. This is dried and analysed and, in New Zealand, the cards are stored indefinitely. The potential range of

research purposes using such blood samples is increasing, and expanding markets have increased their value. *Med Law* 2005 ; 24: 259-277.

□ Because many patients who have swallowed foreign bodies are asymptomatic, physicians must maintain a high index of suspicion. The majority of ingested foreign bodies pass spontaneously, but serious complications, such as bowel perforation and obstruction, can occur. Foreign bodies lodged in the esophagus should be removed endoscopically, but some small, blunt objects may be pulled out using a Foley catheter or bougie. Once they are past the esophagus, large or sharp foreign bodies should be removed if reachable by endoscope. Small, smooth objects and all objects that have passed the duodenal sweep should be managed conservatively by radiographic surveillance and inspection of stool. Endoscopic or surgical intervention is indicated if significant symptoms develop or if the object fails to progress through the gastrointestinal tract. *Am Fam Physician* 2005; 72: 287-291.

□ A population-based prevalence study was done in Saudi Arabia on randomly selected infants and young children suffering from acute diarrhea to determine the prevalence of Rotavirus. Fecal specimens were collected from 479 patients. A latex agglutination test was used for rotavirus detection. All positive and 10 negative samples for rotavirus by latex agglutination were also tested by enzyme-linked immunosorbent assay (ELISA). Rotavirus was detected in 48 (10%) patients using latex agglutination test. ELISA detected 46/48 positive samples. Ten samples that tested negative with latex test were also negative with ELISA. Infection with rotavirus was more frequent among infants and children <2 years old, with a maximum incidence among children 0-12 months. Rotavirus infection was

3.1% in Saudi nationals, compared to 6.9% in other nationalities. In this study the prevalence rate of 10% was low compared to other studies done in different regions of Saudi Arabia. This low rate could be due to the geographical location of Makkah with very hot and dry summer, and mild winter and almost no rain throughout the year. *J Pak Med Assoc* 2005; 55: 231-244.

□ The ratio of disproportionate versus proportionate Intra uterine growth retardation among low birth weight babies using the Ponderal index was determined in a retrospective study. Medical records of babies with weight <2.5kg delivered in the obstetric department were reviewed. The ponderal index was calculated to determine disproportionate and proportionate intra uterine growth retardation among low birth weight babies. A total of 227 babies were included. Male and female ratio was equal. Eighty nine low birth weight babies (39.9%) had a low ponderal index. Ponderal index in fullterm babies was < 2.2 in 54.3% and in pre-term < 2.0 in 34.9%. Nearly 40% of low birth weight babies had disproportionate body proportions. This group of babies according to fetal origins of diseases may be predisposed to diabetes, hypertension and coronary artery disease. *J Pak Med Assoc* 2005; 55: 229-231.

□ The progress of rheumatic fever (RF) and the predictors of severe chronic valvular disease. was prospectively followed up since their first attack of acute RF (ARF) at Universidade Federal de Minas Gerais, Brazil. 258 children and adolescents who met the revised Jones criteria for RF were followed up for periods ranging from 2-15 years. The presence and severity of mitral or aortic valvar disease were determined by both clinical and Doppler echocardiographic examinations. Doppler echocardiography of 258 patients studied showed that 186 (72.1%) developed

chronic valvar disease and 41 (15.9%) progressed to severe chronic mitral or aortic lesions. Of 146 patients who developed carditis, 49 (33.6%) had a normal clinical examination in the chronic phase but only nine (6.2%) had normal Doppler echocardiographic findings *i.e.*, 40 (27.4%) patients progressed to chronic subclinical valvular disease. Moderate or severe carditis, recurrences of ARF, and mother's low educational level were risk factors in predicting severe chronic valvular diseases. Hence, in a country such as Brazil, the options available for disease control are mainly primary and secondary prophylaxis. *Heart* 2005; 91: 1019-1022.

❑ Chronic lung disease and severe intraventricular hemorrhage or periventricular leukomalacia in premature infants are associated with abnormal neurodevelopmental outcomes. A prospective, longitudinal follow-up study of premature infants who had received inhaled nitric oxide or placebo was done to investigate neurodevelopmental outcomes at two years of corrected age. Neurologic examination, neurodevelopmental assessment, and anthropometric measurements were made by examiners who were unaware of the children's original treatment assignment. A total of 138 children (82% of survivors) were evaluated. In the group given inhaled nitric oxide, 17 of 70 children (24%) had abnormal neurodevelopmental outcomes, defined as either disability (cerebral palsy, bilateral blindness, or bilateral hearing loss) or delay (no disability, but one score of less than 70 on the Bayley Scales of Infant Development II), as compared with 31 of 68 children (46%) in the placebo group (relative risk, 0.53; 95% confidence interval, 0.33 to 0.87; $P = 0.01$). This effect persisted after adjustment for birth weight and sex, as well as for the presence or absence of chronic lung disease and severe intraventricular hemorrhage or periventricular

leukomalacia. The improvement in neurodevelopmental outcome in the group given inhaled nitric oxide was primarily due to a 47% decrease in the risk of cognitive impairment (defined by a score of less than 70 on the Bayley Mental Developmental Index) ($P = 0.03$). Premature infants treated with inhaled nitric oxide have improved neurodevelopmental outcomes at two years of age. *N Engl J Med* 2005; 353: 23-32.

❑ Each year in the United States, 6000 to 7000 women with HIV give birth. The management and outcomes of prenatal HIV infection have changed substantially since the US Preventive Services Task Force issued recommendations in 1996. This study was undertaken to synthesize current evidence on risks and benefits of prenatal screening for HIV infection. Data was obtained from MEDLINE, the Cochrane Library, reference lists, and experts. Studies of screening, risk factor assessment, accuracy of testing, follow-up testing, and efficacy of interventions were retrieved. Data on settings, patients, interventions, and outcomes were abstracted for included studies; quality was graded according to criteria developed by the Task Force. In developed countries, the rate of mother-to-child transmission from untreated HIV-infected women is 14% to 25%. Targeted screening based on risk factors would miss a substantial proportion of infected women. "Opt-out" testing policies appear to increase uptake rates. Standard HIV testing is highly (>99%) sensitive and specific, and initial studies of rapid HIV tests found that both types of testing had similar accuracy. Rapid testing can facilitate timely interventions in persons testing positive. Recommended interventions (combination antiretroviral regimens, elective cesarean section in selected patients, and avoidance of breastfeeding) are associated with transmission rates of 1% to 2% and appear

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acceptable to pregnant women. Long-term safety data for antiretroviral agents are not yet available. Data are insufficient to accurately estimate the benefits of screening on long-term maternal disease progression or other clinical outcomes, such as horizontal transmission. Identification and treatment of asymptomatic HIV infection in pregnant women can greatly

decrease mother-to-child transmission rates. *Ann Intern Med* 2005; 143: 38-54.

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