

†589 BIRTH WEIGHT AMONG WOMEN OF DIFFERENT ETHNIC GROUPS.
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Differences in mean birth weight and low birth weight (<2.5 Kg.) are analyzed among Asians, Blacks, Hispanics, and Whites who were enrolled in the Northern California Kaiser-Permanente Birth Defects Study, a prospective study of 29,415 pregnancy outcomes. Large differences in birth weight among babies of different ethnic groups persist after controlling for the joint effects of maternal smoking and alcohol use during pregnancy, sex of child, parity, length of prenatal care, and maternal weight-for-height percentile. Compared to Whites, the relative mean differences in birth weight are estimated as -246 grams for Blacks, -210 grams for Asians, -105 grams for Hispanics, and -140 grams for Others. The low birth weight rates and crude odds ratios are 7.70% (2.17) for Blacks, 5.57% (1.57) for Asians, 5.52% (1.55) for Others, 4.00% (1.13) for Hispanics, and 3.55% (1.00) for Whites. After controlling for the effects of 21 factors, the odds ratios for a low birth weight infant are 2.41 for Blacks, 1.37 for Asians, 1.93 for Others, and 1.25 for Hispanics. It is concluded that factors currently used to control for ethnic differences in birth weight are insufficient to explain the observed differences.

†590 EPIDEMIOLOGY OF KAWASAKI SYNDROME (KS) IN AN AREA WITH A SMALL ASIAN POPULATION. Stanford T. Shulman, James McAuley, Lauren M. Pachman, Michael L. Miller, and David G. Ruschhaupt. Dept. of Pediatrics, Children's Mem. Hosp., Northwestern U. Med. School, and U. of Chicago, Chicago.

Cases of KS in the Chicago area during 1979-83 were identified retrospectively from pediatric echocardiographic facilities in metropolitan Chicago and from a random sample of community hospitals. We identified 190 children with KS who underwent echocardiography. Male:female ratio was 1.58:1 ($p < 0.05$). 117 (62%) of patients were white, 61 (32%) were black, and 12 (6%) were Asian, the latter slightly over-represented ($p < 0.1$). Mean age at diagnosis was 3.1 yrs. Incidence peaked in the 2nd and 4th quarters of the years ($p < 0.005$), especially in Apr, May, Nov, and Dec ($p < 0.05$), and was lowest in July-Sept. Cases were endemic with two superimposed Spring clusters in 1980 and 1983. By echocardiography, 30/190 (16%) had coronary aneurysms: 22/115 boys (19%) and 8/75 (11%) girls ($p < 0.1$). The incidence of aneurysms did not vary by month, season, or year. Aneurysms were present in 0/10 Asians, 7/61 (11.5%) blacks, 22/117 (19%) whites and 1/2 mixed Asian/whites ($p < 0.1$). Aneurysms were diagnosed in a higher percentage of children <2 yrs (17/78--22%) than ≥ 2 yrs (13/122--12%) ($p < 0.07$). Whites <2 yrs are a subgroup with a high incidence of aneurysms (17/55--31%), significantly greater than all others (13/135--10%) ($p < 0.005$) and non-whites <2 yrs (1/23--4%) ($p < 0.01$). Thus, in the Chicago area, where Asians comprise a small fraction of the population, KS was diagnosed most often in white children, and white children <2 yrs had the highest incidence of coronary aneurysms diagnosed by echocardiography.

591 IS *AEROMONAS HYDROPHILA* A COMMON CAUSE OF DIARRHEA IN CHILDREN? Stanford T. Shulman, Tommy L. Williams, and Ernest Burkholder. Department of Pediatrics, Northwestern University Medical School, The Children's Memorial Hospital, Chicago.

Recent reports of *Aeromonas hydrophila* as a cause of gastroenteritis in other areas of the world and its increased isolation during the summer months prompted us to investigate the frequency of recovery of this organism in pediatric patients with diarrhea in the Chicago area. A commercially available (Remel, Lenexa, KS) selective MacConkey agar plate containing 1% Tween 80 and 10 $\mu\text{g/ml}$ ampicillin for the isolation of *Aeromonas hydrophila* was used to screen inpatient and outpatient stool cultures routinely submitted to the clinical microbiology laboratory from June 1, 1984, to September 30, 1984. These plates were shown to enable detection of a 10^{-6} dilution of a McFarlane 1 standard broth growth of a stock strain of *A. hydrophila*, as well as detection of a 10^{-5} dilution when mixed with normal stool. Of 500 surveyed stool specimens, nine (1.8%) from eight individuals yielded *A. hydrophila*. These included seven children with acute gastroenteritis and one asymptomatic mother of a child with salmonellosis. During the same period, 40 salmonella, 25 shigella, 15 campylobacter, and 1 yersinia isolates were recovered in this laboratory from children with diarrhea. Because of reported asymptomatic carriage rates as high as 3%, we conclude that *A. hydrophila* does not appear to be a major gastrointestinal pathogen in children in metropolitan Chicago during summer but that it may be associated with sporadic cases of diarrhea.

†592 IS AIDS TRANSMITTED HORIZONTALLY? Marc J. Sicklick, Brian Novick, and Arye Rubinstein. Albert Einstein College of Medicine, Department of Pediatrics, Bronx, New York.

To ascertain whether or not there is a risk of horizontal transmission of AIDS, we studied 24 pediatric household contacts of 9 pediatric AIDS index cases. Immune parameters studied included serum immunoglobulins, T₄ and T₈ cells, in vitro lymphocyte mitogenic responses to phytohemagglutinin, pokeweed mitogen and staph cowan A. Transient immunologic aberrations were noted in four children from three families. These aberrations included elevated IgG levels, reversed T₄/T₈ ratios and slightly diminished in vitro lymphocyte mitogenic responses to pokeweed mitogen. In no case could antibodies to the lymphadenopathy virus be documented. Clinically, all household contacts remained healthy over a four year follow-up.

593 CLUSTERING OF STAPHYLOCOCCUS AUREUS (SA) INFECTIONS IN A PEDIATRIC HEMODIALYSIS (HMD) UNIT. Jane Siegel, Patti Duer, Vicki Grumman, Michael Norgard, Michel

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The occurrence of SA A-V shunt infection and bacteremia in 3 of 6 HMD patients (PTS) within a 2 week period prompted evaluation of all HMD patients and personnel. The outbreak began 1 day following initiation of HMD in PT A who had been undergoing peritoneal dialysis prior to the development of severe peritonitis caused by SA. Bacteremia and A-V shunt infection developed at 3, 6, and 13 days in PTS B, C, and D, respectively. At 13 days, PT E presented with tenderness, erythema, and warmth at the site of the A-V shunt, but SA was isolated from the nasopharynx only and symptoms resolved after administration of a single dose of vancomycin. PT F remained asymptomatic and was not colonized with SA. Of the 7 HMD unit personnel, 2 nurses (A,B) were colonized with SA. SA from nurse A was the only strain resistant to methicillin. Analysis of antibiograms, phage susceptibility and plasmid content of the HMD unit strains as well as of 8 nosocomially acquired SA strains isolated from patients in other areas of the hospital revealed that this was not a single source outbreak. Plasmid analysis was particularly useful for identification of the following relations amongst the 5 SA strains isolated from HMD PTS and personnel that were not susceptible to phage typing: identity of PT D and E strains, identity of PT A strain and an apparently unrelated nosocomial strain, and lack of identity of nurse B strain and HMD PTS strains. Epidemiological evaluation of possible nosocomial infections often requires more specialized techniques than those that are routinely used.

594 LINEAR INCREASE IN BONE MINERAL CONTENT IN CHILDREN 1 TO 7 YEARS OF AGE WITH LOWER CONTENT IN FEMALES AFTER 4 YEARS. B. Specker, W. Brazzerol, R. Levin, J. Searcy, R. Tsang. U. of Cincinnati College of Medicine.

We reported that bone mineral content (BMC) in the first 6 mos of life was decreased in breast-fed infants without vitamin D, vs breast with D or formula-fed infants. No data have been reported on BMC and bone width (BW) in healthy children from 1 to 7 yrs. We hypothesized that BMC increases with age and is lower in females, with no difference by previous breast vs formula intake, or sun exposure. BMC and BW were determined on 96 children 1-7 yrs using direct photon absorptiometry at 1/3 distal radius. BMC (gm/cm) was highly correlated with age ($r = .81$, $p < .001$). Mean (\pm sd) BMC values for 1-, 2-, 3-, 4-, 5-, and 6-year olds were .140 ($\pm .020$), .174 ($\pm .031$), .215 ($\pm .046$), .254 ($\pm .047$), .272 ($\pm .041$) and .363 ($\pm .058$) gms/cm. BW also increased with age ($r = .23$, $p = .03$) with means of 7.8 ($\pm .9$), 8.5 (± 1.4), 9.2 (± 1.3), 9.0 (± 1.4), 8.8 (± 1.1), and 9.6 ($\pm .9$) mm resp. Females had lower BMC vs males: .219 ($\pm .063$) vs .259 ($\pm .080$) resp ($p < .01$): there was no sex difference at 12-47 mo; 48-83 mo females had lower BMC than males (.262 $\pm .053$ vs .301 $\pm .066$ resp, $p = .03$). BMC was not related to previous breast or formula feeding, even after adjusting for time since discontinuation ($p = .9$). BMC correlated with hrs of sun exposure per week ($r = .31$): but not ($p = 0.9$) when age was controlled (multiple regression). Thus, bone mineral content increases significantly and linearly with age from 1 to 7 yrs; females have lower BMC than males after 4 years. Age and probably sex specific comparisons should be made in childhood BMC studies.