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THERAPEUTIC EFFECTIVENESS OF INTRAVENOUS IMMUNOGLOBULINE (IVIG) IN VERY LOW BIRTH WEIGHT NEWBORNS WITH SEPSIS. *A.Bancalari, *P.Martinez, C.Vásquez, **E.Sáenz. *Pediatric Ward Hospital G.Grant B., Concepción. **Medical Department, Universidad de Concepción.

Preterm newborns are susceptible of invasion by microorganisms due to immaturity of their immune system. This study aimed at assessing the effect of IV immunoglobulins as supportive treatment in neonatal sepsis. Subjects and methods: 32 preterm newborns whose weight at delivery was under 1500 grams were prospectively studied for two years after they had developed sepsis in the Neonatal ICU of G.Grant B.Hospital in Concepción. Sepsis was defined as the presence of positive hemoculture, compatible clinical signs and/or symptoms and corroborating laboratory tests. The 32 newborns had been randomly assigned to two groups: 16 newborns received the regular antibacterial treatment (Group I) and the remaining 16, were given 500mg/kg/day IVIG for 7 days (Group II) in addition to antibiotics. Serum IgG levels were tested during and at the end of treatment by Group I , and on a daily basis in those in Group II. Collateral effects from IVIG infusion were monitored by clinical observation and laboratory tests (CBC, transaminases blood, creatinine). Results: Average delivery weights were 1124 grams and 1095 grams for Group I and II, respectively. No sex predominance occurred in either group. Average basal serum IgG level was 486 mg in Group II and increased to 852 mg ($p<0.01$) after the first IVIG dosage. Significant correlation ($r = 0.94$) was found between IgG levels in serum and days of treatment. The mortality rate was 31.3% in Group I and 6.3% in Group II ($p < 0.03$). No untoward effects were observed after IVIG infusion. IVIG administration may be an efficient, low risk supportive therapy in the treatment of neonatal sepsis.

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PREVALENCE OF ANTI-HEPATITIS A (HAV) ANTIBODIES BY AGE GROUP IN THREE REGIONS IN CHILE. PRELIMINARY REPORT ON PREVALENCE OF OTHER VIRAL HEPATITIS AGENTS. P.A.Vial, C.Ferreccio, R.Contreras, M.Potin, J.Ovalle, X.Aguilera, V.Sotomayor, P.Pérez, J.Zacarías. Center Medical Research, U. Católica; GREDIS Found., Hosp.Calvo Mackenna.

Viral hepatitis is the most frequent reportable infectious disease in Chile. Its seroprevalence was studied in 3 regions in Chile (I (IR), XII (XIIR) and Metropolitan Region (MR). A demographic and risk factor survey and a blood sample were obtained from subjects at randomly selected homes in each area (1 subject per home). Serum samples were tested for anti-HVA IgG by ELISA. Selected cohorts were also tested for hepatitis B (HBV) and C (HCV) markers by ELISA. 2600 subjects were enrolled (776 (IR), 1112 (MR), 772 (XIIR). Overall prevalence rates for anti-VHA IgG were 64% (IR), 31% (MR) and 26% (XIIR). In all regions prevalence rates increased progressively with age. Two epidemiological patterns were noted, one in MR and XIIR with slow increase in prevalence with age, reaching 44% by age 15, and other in IR with early acquisition of antibodies and rapid increase in prevalence reaching 94% by age 15. Prevalence rates were higher in the low socio-economic status (SES) in MR. Age adjusted rates for low and middle SES groups were similar (50 and 43%) and both significantly higher than high SES group (19%). Multivariate analysis indicates that age, SES, consumption of shellfish and lack of running water at home are statistically significant risk factors for HAV in Chile. 1813 samples were analyzed for HBV markers, 13 (0.7%) were positive for anti-HBcAg and 2(0.1%) positive for HBsAg. 150 samples from young adults were negative for anti-HCV (C100-3). There is a significant reduction in anti-HAV prevalence in MR when compared to previous studies from the 80's. Two epidemiological patterns of HAV were observed. Age, SES, consumption of shellfish, and lack of running water appear as risk factors for HAV. Prevalence of HBV markers is low and does not show regional variations. Grant FONDECYT N° 90-0659. Grant Child Health Foundation ID/91UC.

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IgG SUBCLASSES IN CHILDREN WITH IgA DEFICIENCY. R.Craviotto, A. Roy, G. Feldman. Hospital de Pediatría J.P. Garraham, Servicio de Inmunología. Argentina.

Children having normal serum levels of IgG and IgM but IgA below 5mg/dl were considered as having "selective IgA deficiency". Those with-2 SD from the normal mean for the age were defined as "partial selective IgA deficients". Deficiency of IgG subclasses was considered in those patients whose values were below the 5th percentile data from the literature. Igs were determinated by radial immunodifusion and IgG subclasses by ELISA. Preliminary data from 27 children is presented: 22 with classic selective deficiency and 5 with partial deficiency. The former group consisted of 11 males and 11 females between 1 and 14 years of age (x=6.8) while the latter were 4 males and 1 female between 3 and 12 years (x=6.6). All had recurrent infections of the upper respiratory tract. Besides, 8 had asthma, 2 pneumonias and 7 other pathologies such as chronic diarrhea, urinary tract infections, recurrent meningitis, celiac disease and rheumatoid arthritis. Deficiency of one or more IgG subclasses were present in 77.8% of the 27 children. Classic and partial IgA deficiencies had the same frequency as IgG subclasses deficiency. There was no correlation between clinical features and isotype deficiency, except in asthmatic patients in whom IgG 4 subclasses deficiency was predominant. Patients with other associated pathologies had predominantly normal levels of the IgG subclasses. There was no IgG 1 subclass deficiency, probably because of the criteria applied for selection of patients. The frequent association between deficiencies of IgG subclasses and of IgA will probably require a new definition of this latter.

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MATERNAL ADMINISTRATION OF THYROTROPIN-RELEASING HORMONE (TRH) AND BETAMETHASONE (B) INCREASES LUNG COMPLIANCE IN PREMATURE LAMBS. F.A.Moraga, E.Jiménez, R.Riquelme, E.Sanhueza, C.Gaete, V.Marín, A.J.Llanos. Fac de Medicina, Depto Preclínicas Cs. Médicas Oriente, Lab Fisiología y Fisiopatología del Desarrollo, Fac Cs Químicas y Farmacéuticas, Depto Bioquímica y Biología Molecular, U. de Chile, Santiago, Chile.

Administration of TRH and B to mothers decreases the incidence of bronchopulmonary dysplasia in premature babies. Fetal administration of TRH and Cortisol at 0.85 of gestation increases lung compliance in premature lambs. Since it is not known whether maternal administration of TRH plus B in sheep (in similar doses as in humans) modifies fetal lung compliance, we measured the changes of fetal lung volume induced "in vitro" by pressures of 40, 10, and 5 cm of H2O into the fetal trachea (V40, V10, V5). Twenty one fetal sheep at 0.83 of gestation were divided in three groups: Group TRH + B (n=5) the mothers received TRH (400 ug q 8 h for 6 doses, i.v.) plus B (12 mg q day for 2 doses, i.m.), mothers in Group B (n=5) received only B (same doses), while Group C were 11 control fetuses. The results are expressed as ml air/g of wet fetal lung (ml/g).

	V40(ml/g)	V10(ml/g)	V5(ml/g)
Control (C)	0.233±0.023	0.138±0.013	0.094±0.010
Betamethasone (B)	0.372±0.046#	0.128±0.013	0.082±0.014
TRH + Betamethasone (TRH+B)	0.864±0.156*	0.488±0.128*	0.377±0.110*

$\bar{x} \pm$ E.S. *$p < 0.05$ TRH+B vsC and B # $p < 0.05$ B vs C.

Administration of TRH and B to mothers has greater effects on fetal lung compliance than B alone when given to the pregnant ewe at similar doses to those used in humans. Our results are consistent with the hypothesis that TRH and B act synergistically on fetal lung maturation.

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CONTROLLED TRIAL OF PRENATAL BETAMETHASONE (B) PLUS TRH FOR PREVENTION OF RESPIRATORY DISTRESS SYNDROME (RSD) IN PRETERM INFANTS. J.Ceriani Cernadas, C.Fustiñana, F.Althabe, O.Althabe. Division Neonatología y Obstetricia. Hospital Italiano, Buenos Aires, Argentina.

A double- blind, randomized trial was carried out, to evaluate the effects of prenatal administration of B and TRH on the incidence and severity of RDS. 57 premature infants (26-31 weeks of gestation) born from 52 mothers treated for 10 days prior to labor, were included. The study group (G1) (n=26) received B: 12mg IM q12 h plus TRH 200 ug IV q12 h. The control group (n=31) (G2) received an equal dose of B plus placebo. Incidence of RDS was 27% and 29% in G1 and G2, respectively. Significant differences were found in the duration of treatment with O2; $\bar{x}$ 21 vs 108 h in G1 and G2, respectively ($p= .004$) and in the duration of IPPV $\bar{x}$ 6.3 days in G2 vs 13.9 in G1 ($p < 0.05$). Among there surviving beyond 28 days of life no infants in G1 received $FiO2 > .21$, while 6 (25%) in G2 required this treatment for a longer period ($p= .02$). No infants in G1 and 5 in G2 (21%) developed Bronchopulmonary displasia (BPD) ($p= .02$). Prenatal treatment with B plus TRH may be more efficient than B alone in reducing O2 requirements and the duration of oxygen therapy and mechanical ventilation. This therapy may diminish the incidence of BPD.

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COMMINUTED CHICKEN IN THE TREATMENT OF MALNOURISHED CHILDREN WITH PERSISTENT DIARRHEA. M.Araya, J.Espinoza, O.Brunser, I.Pacheco, J.Howard. INTA, U.of Chile and CREDES/CONIN, Santiago, Chile.

CREDES is a center for diagnosis and treatment of children with secondary malnutrition. Between January 1990 and June 1991, 21 infants (9.3% of all admissions) suffered from persistent diarrhea and of these, 19 did not respond to the initial dietary management. A locally made comminuted chicken formula (CCF) was assayed as an alternative to the expensive commercial formulae available for nutritional support. It consisted of 10% skinless chicken meat, 20-30% pureed carrots, 3-5% dextrinmaltose, 1-5% glucose and 3-5% vegetable oil. Of the children studied, 35% had birthweight under 2500g, 88% had been breastfed for a month or less and 50% had been hospitalized two or more times. On admission, patients had suffered as an average 13 morbid episodes. Mean W/A, H/A and W/H were 61.7%, 88.3% and 89.5% of the WHO/NCHS standards, respectively. Mean duration of hospitalization was 145.3 days (range 53-283). They were fed CCF for a mean of 145.3 days (59% of their hospitalization period) and they were regraded to a commercial formula before discharge. Restriction of sucrose intake associated to lactose withholding resulted in improvement of clinical symptomatology and of nutritional parameters. None of the patients required parenteral nutrition. The following diagnoses were made: celiac disease (4), cow's milk protein intolerance (2), agammaglobulinemia (1), secondary disaccharidase deficiencies (12, of which 5 were lactase and 10 sucrase deficiencies). On discharge W/A, H/A and W/H were 78.5%, 89.5% and 100.7%, respectively. CCF is a good alternative for the clinical management of these patients bacause of its acceptability, tolerance and low cost.