11 METABOLIC BALANCE STUDIES IN LBW INFANTS FED FOUR DIFFERENT FORMULAS. II) NITROGEN BALANCES.

Sola H., O'Donell A.M. CESNI (Center of Studies on Infants Nutrition). H.M.I.R. Sardá Buenos. Argentina.

Results of nitrogen-balance studies performed in the same sample of LBW infants fed the formulas described in the previous abstract are shown below.

Protein was 82/12 casein/whey in Vital Inf. and 40/60 in the other three.

	Vital Inf.	Nan	S26	3242
No. of Balances	8	7	6	12
Prot/Kg/d	5.6±1.1	3.7±0.4	3.5±0.5	4.3±0.3
N Ret %	69.8±8.0	62.8±7.9	56.1±13.3	67.4±7.1
NPU	71.8±10.6	69.2±8 8	63.2±10.4	75.3±7.3

No correlation was found between N retention, weight and post-conceptional and postnatal ages. Retention ranged from 37.0 to 86.4 ($\bar{X}$: 64.8±10.2). N intake was not correlated with N retention (r:0.36 p 0.1). Apparent digestibility in all formulas ranged from 78.4 to 98.7 ($\bar{X}$: 90.1±4.9); no differences were observed among formulas. Biologic value of protein in formulas was 78.9±11.0. NPU op. is showed in the table above.

No differences were observed in the nutritional value of protein in the four formulas.

12 BREECH PRESENTATION AND ITS EFFECTS ON THE FETUS AND NEWBORN.

Di Martino C. Maternidad Nacional. Asunción Paraguay.

The incidence of breech presentation and its effects on the fetus and the newborn were studied in 2734 deliveries (excluding twins) occuring at the National Maternity of Asunción during 1978. One hundred and twenty six (4.6 %) children were in this presentation; 61 % of them were delivered vaginally and 39 % by cesarean section. Total mortality of the vaginally delivered babies (including prematures) was 12 % - 26 % for primiparous mothers, 7,9 % for secundiparous mothers and 9.5 % for multiparous mothers -.

The neonatal mortality of those delivered by cesarean section was 6.4 % and those deaths were unrelated to the presentation or way/delivery (respiratory distress syndrome, diaphragmatic hernia, hemolytic disease).

This results reafirm the need for a careful evaluation in all breech deliveries, specially so in those of primiparous mothers.

13 GONADOTROPHIN RESPONSE TO Gn-RH IN PATIENTS TREATED WITH CYCLOPHOSPHAMIDE.

Mendilaharzu H., Caletti M.G. Vitacco M., Sojo E., Canepa C., Domene H. and Bergadá C. CEDIE y Nefrología. Htal. de Niños de Buenos Aires. Argentina.

The gonadotrophin response to Gn-RH was studied in 18 males with nephrotic syndrome treated with cyclophosphamide in a total dosis ranging from 2 to 94gm. Evaluation was performed from 6 months to 10 years after completion of therapy. Patients were divided in 3 groups: a) 8 prepubertal (6 to 9y) b) 8 pubertal (11 to 17y) and c) 2 adults (20y). LH and FSH were measured by RIA and results given in ng/ml LER 907. Normal values in our laboratory are ($\bar{X}$ ± SD) basal (B) and maximal increment (MI):

Group a) FSH B 62 ± 43 MI 130 ± 55; LH B 37 ± 31 MI 118 ± 90
Group b) FSH B 96 ± 30 MI 170 ± 47; LH B 42 ± 16 MI 226 ± 97
Group c) FSH B 114 ± 13 MI 182 ± 10; LH B 56 ± 19 MI 167 ± 90

Results in the patients studied were:

Group a) n=7 FSH B 69 ± 28 MI 129 ± 35; LH B 29 ± 11 MI 87 ± 37
Group b) n=8 FSH B 93 ± 18 MI 172 ± 45; LH B 35 ± 13 MI 260 ± 322
Group c) n=2 FSH B 50 MI 107 LH B 33 MI 135

B and and post Gn-RH gonadotrophin values did not differ significantly from controls. However, elevated FSH values were found in one patient of group a, who received the highest cyclophosphamide dosage of this group. It is concluded that at the time of the study in 17/18 patients there was no testicular damage capable to produce a gonadotrophin elevation.

14 PLASMA AND URINARY CATECHOLAMINES (CA) IN NORMAL CHILDREN.

Levin Gloria M., Armando M. Inés and Barontini Marta B. CEDIE. Htal. de Niños. Buenos Aires. Argentina.

This study was undertaken to evaluate the relationship between plasma and urinary CA and age, pulse rate, blood pressure and urinary Na^+ excretion. 148 healthy children (aged 2d-14y) were tested for epinephrine (E) and norepinephrine (NE) urinary excretion (fluorimetric method). Basal plasma E, NE and dopamine (DA) were measured in 16 children (aged 4y-10y) by a radioenzymatic assay. Blood was sampled in basal conditions. Values obtained were ($\bar{X}$ ± SE, range R), NE: 175.8 ± 13.69, R: 116.0-310.0; E: 98.7 ± 9.42, R: 53.0-168.0; DA: 988.0 ± 88.6, R:530.0 - 678.0, pg/ml. There was positive correlation (r: 0.63, p 0.005) between basal plasma NE and age. No correlation between NE, pulse rate and blood pressure and neither between E and DA and the mentioned parameters were found. The relationship between plasma CA and urinary Na^+ showed a negative correlation for DA and Na^+ (r: -0.56 p 0.05) while there was no correlation between E and NE and urinary Na^+. NE urinary excretion 28.3 ± 1.38, (R:1.1-79.2ug/24hs) showed a positive correlation (r:0.63, p 0.002) with age. No correlation was found between urinary E and age. We can conclude: 1° studies in children should be aged-matched, 2°DA has a role in Na^+ balance regulation.

15 EFFECT OF BROMOCRIPTINE ON THE SECRETION ON PITUITARY HORMONES IN CHILDREN.

Bazán Ma.Cristina, Barontini Marta, Stefano F.J.E., Domene H. CEDIE, INIFA, CONICET, Buenos Aires. Argentina.

We have previously demonstrated that in normal children Bromocriptine (BRE) at a dose of 1.25mg per os induced HGH secretion without modifying FSH and LH levels. A marked decrease in sistolic(S) and diastolic(D) blood pressure was also found ($\bar{X}\Delta$/B S-22; D-12mm Hg). The present work has a dual purpose a) to find out a proper dosage of BRE devoid of side effects on the cardiovascular system and b) to study its effect on prolactin secretion. 17 children ranging in age from 6-17 years old, without any endocrine pathology were studied. 8 patients received 1.25mg of BRE per os; (Group I); 5 patients received 0.62mg per os (Group II); and 4 were given BRE after insulin stimulation (2:1.25mg and 2:0.62mg) (Group III). Plasma levels of HGH and PRL were measured by RIA. An increase in HGH levels was observed in group I, basal $\bar{X}$= 5.71 ± 1.8(S.E.)ng/ml, maximun increment (MI) $\bar{X}$ 16.0ng/ml. In group II HGH levels were also raised with basal $\bar{X}$=5.4ng/ml and M.I. $\bar{X}$= 15ng/ml. A minor effect on blood pressure was found with this dose ($\bar{X}\Delta$/B S-9; D-4mm Hg). Basal levels of PRL in group II were 29 ± 9,8ng/ml and they decreased to 4.3 ± 0.52ng/ml at 180'. We conclude that BRE 0.62mg per os is enough to produce endocrine changes without cardiovascular side effects in children.

16 GONADOTROPIN SECRETION IN GONADAL PATHOLOGY IN CHILDREN.

Bergadá C., Domene H. and Rivarola M.A. Centro de Investigaciones Endocrinologicas. Hospital de Niños "R. Gutierrez". Buenos Aires. Argentina.

Gonadal insuficiency was previously diagnosed because of lack of sexual development at puberty. The gonadotropic response to Gn-RH was studied in pre and post pubertal patients with anorchia and ovarian dysgenesis. In 16 patients with anorchia, aged 1 to 16 years, basal and post stimulation FSH and LH, were significantly higher than in cryptorchid patients, but comparable to anorchid adult men.

Twenty three pre and post pubertal girls with Turner's syndrome and chromosomal constitutions XO; XO/XX; XO/Xr; XXqi and XO/Xqi were also studied. In the XO group, values were always significantly elevated, however, in the others, normal and high gonadotropin levels, specially FSH were observed in prepubertal patients.

These findings demonstrate that prepubertal gonadotropin increase would indicate absence of functional testicular tissue in the male and in girls with Turner's syndrome and mosaicism or structural abnormalities of X chromosome the existence of ovarian agenesis like in the XO syndrome. On the contrary, normal levels would indicate the presence of functional ovarian tissue.