11 CATECHOLAMINE (CA) SECRETION AND RESPONSE TO A STANDING POSITION IN NORMOTENSIVE CHILDREN. A.Puyó, G. Levin, I.Armando, M.Barontini. CEDIE Hospital de Niños R. Gutierrez. Buenos Aires, Argentina.

Sulfoconjugation is a long time recognized metabolic pathway of CA, but its importance has only recently been appreciated. The degree of conjugation depends on the type of CA: epinephrine (E), norepinephrine (NE) and dopamine (DA). Basal free and conjugated (total) plasma CA levels (radioenzymatic method) were evaluated in 35 normotensive children (aged 6 months-5 years). In 16 of them a standing test was performed. Twenty-one normotensive adults were also studied. It was found a positive and significant correlation between total DA and total NE in both, children and adults ($r=0.42$, $p<0.05$; $r=0.45$, $p<0.05$). The DA and NE conjugation degree were similar in all groups, meanwhile the E conjugation degree was significantly lower in the youngest children (6 months-5 years group, $p<0.01$). In response to standing, 10 out of 16 children showed an increase in free NE and DA ($p<0.05$ and $p<0.01$), while only an increase in free DA levels was observed in the rest of the groups. These data showed that the sulfoconjugation mechanisms are similar in children as in adults. Moreover, besides the already reported plasma NA response to standing, a significant plasma free DA increase was found.

12 RENAL FUNCTIONAL RESERVE IN CHILDREN WITH HISTORY OF HEMOLYTIC-UREMIC SYNDROME AND IN CHILDREN WITH SOLITARY KIDNEYS. E.M.Perelstein, R.B.Simsolo, M.I.Gimenez, B.G.Grünfeld. Children's Hospital "Dr.Ricardo Gutierrez" and Italian Hospital, Buenos Aires, Argentina.

Renal Functional Reserve(RFR) is the capacity of the kidney to increase the rate of filtration under certain demands, e.g., an oral protein load. The absence of RFR may be the equivalent of glomerular hyperfiltration, since it suggests that the available nephrons are working at their maximal level. The purpose of this study was to determine the RFR in 17 normotensive patients with history of Hemolitic-Uremic Syndrome(HUS) and normal CrCℓ, comparing them to 10 normotensive patients with Solitary Kidneys(SK) and normal CrCℓ and to 15 normal children. We measured the RFR in response to an oral protein load (45g/m²). All normal children increased their CrCℓ significantly ($\bar{X}$ 170.9+36.06 mℓ/min/1.73m² vs. 131.3+28.74mℓ/min/1.73m², $p<0.0001$). Only 6/17 patients with history of HUS had a response comparable to the normal group, whereas 8/17 did not change their CrCℓ and 3/17 had a "paradoxical response", i.e. they decreased their CrCℓ by 25 - 40%. In the SK group 3/10 patients had a normal response, while 6/10 patients had a paradoxical response and 1/10 did not change his CrCℓ.

We conclude that 65% of the patients studied with history of HUS but without any evidence of present renal involvement exhibit absence of RFR. This result is comparable to the one obtained in the SK group, where we observed absence of RFR in 70% of the patients.

13 EFFECTIVENESS OF 2 SCREENING PROGRAMS FOR THE DIAGNOSIS OF CONGENITAL HYPOTHYROIDISM(CH). S.Iorcansky, L. G.Papendiek, M.C.Arriazu, L.Prieto, M.A.Rivarola, C. Bergadá. CEDIE. FEI, Hospital de Niños "R. Gutierrez" Buenos Aires, Argentina.

The development of a screening program for congenital hypothyroidism(CH) was a difficult task for us. We started in January 1979 with a limited screening in a population of newborns of high risk. This population was defined by the presence of one non-specific sign that can be associated with CH in newborns. These signs were detailed in a special form distributed along with instruction to take and send a drop of blood to the laboratory. A TSH assay on filter paper, developed by us, was used for the screening. We received, up to June 1988, 4693 samples and we detected 123 CH. However, only 22% were diagnosed during the first month of life and 43% within two months of life. Therefore, 57% were diagnosed between 3 and 12 months of age even though 80% had signs before the first month of life. In view of the shortcomings of these programs, in 1985 we started a massive screening in 3 areas of our country. From August 1985 to June 1988, we collected 27556 and we detected 8 CH, an incidence of 1/3447. Difussion of these programs in the community resulted in the spontaneous request of 14950 samples for study which resulted in the detection of 10 CH between 2 and 120 days of age (48.5+40.6 d.). In summary we made the diagnosis of 141 CH by different methods. We conclude that the best effective method for early diagnosis of CH is massive screening and that this should be put into practice in our country. The fact that from 141 detected HC only 72 (50%) were younger than 3 months, (even when they would have been younger than 1 month) reinforce the idea of the necessity to implantate the massive screening in our country.

14 EFFECT OF ANTICHOLINERGIC THERAPY IN CHILDREN WITH PRIMARY VESICO URETERAL REFLUX AND DETRUSOR INSTABILITY. E.M.Quesada, M.Podesta, R.Medel, A.C.Ruarte. Urology Division,Hospital de Niños "Ricardo Gutierrez",Buenos Aires, Argentina.

To determine the effect of anticholinergic therapy in patients with detrusor instability and vesico ureteral reflux (VUR), a prospective clinical trial was designed including urodynamic evaluation in addition to routine X-Ray and laboratory studies; 69 neurologically normal children with 99 refluxing ureters aged 4 to 12 years were included. All patients received continuous prophylactic antibacterial chemotherapy. Initial urodynamic findings distinguished 2 groups of patients; Group I: 27 children with 40 refluxing ureters and stable bladders, and Group II: 42 children with significant detrusor instability and 59 refluxing ureters. The latter received anticholinergics (propantheline bromide and imipramine hydrochloride).

Follow up evaluation (urodynamic and radiological) at 6 months revealed in Group I, reflux disappeared in 12/40 (30%) and improved in 2/40 (5%); in Group II, 30/42 pts.(41 refluxing ureters showed good clinical and urodynamic response to therapy; reflux disappeared in 27/41 refluxing ureters (66%) and improved in 10/41(24%); whereas in 12/42 pts.(18 r.u.) not showing urodynamic response, reflux disappeared in 6/18 refluxing ureters (33%) and improved in 2/18 (11%). Preliminary data shows: a) Spontaneous reflux resolution rate in stable bladders of 30%; b) Higher reflux resolution rate, in children with detrusor instability who responded to anticholinergics, than in those who didn't; c) Detrusor instability may play a role in perpetuating primary VUR.

15 ENTERIC CAMPYLOBACTERIOSIS IN CHILEAN INFANTS EVALUATED BY CULTURE AND SEROLOGY. G.,Figueroa, H.,Galeno, M.,Troncoso, S.,Toledo , V.,Soto, Microbioly Unit. INTA. U. de Chile,Casilla 15138, Santiago 11, Chile.

C. Jejuni/coli (CJC) infection was prospectively evaluated during a six month period in a cohort of 198 chilean infants.Fecal samples for CJC cultures were obtained from all diarrheal episodes detected through twice-weekly home visits. Samples from paired asymptomatic infants were also obtained. Blood samples taken at admission and at the end of the protocol were analyzed for CJ polyvalent antibodies by ELISA to OMPs antigen. CJC was isolated from 33/299 (11%) diarrheal episodes and from 20/304 (7%) asymptomatic infants. High CJC illness/infection ratio ($p<0.05$) was found in infants bellow 9 mo. Serological data demonstrate significant polyvalent antibody titers to CJ in 27/89 (30%) serum samples.The lowest prevalence (4%) was observed among < 9 mo infants and the highest in >15 mo (63%), ($p<0.01$). Results from 36 infants analyzed through paired serum samples revealed a significant increase in the number of seropositive individuals (8% on admission to 50% at discharge, $p<0,001$). This change in the immune status correlated with symptomatic infection in 9/18 infants and with asymptomatic infection in other two.The antibody rise found in the remaining 7 infants suggest that they had non documented asymptomatic CJ infections. This study stresses the impact of CJC associated diarrheal infections and also the high frequency in which asymptomatic contacts trigger the immune response in infants living in our setting.

16 RESPONSE TO HUMAN GROWTH HORMONE THERAPY ACCORDING TO AGE. A.Martinez, J.J.Heinrich, C.Bergadá. CEDIE. División de Endocrinología. Hospital de Niños "Ricardo Gutierrez". Buenos Aires, Argentina.

It has been suggested that initiation of human growth hormone (hGH) therapy at a young age is more effective that when iniciated at a later age. On the other hand it is known that final height does not correlate with age at start of treatment. We studied the growth pattern of 24 patients with idiopathic hypopituitarism treated with hGH for a period of 4-5 years. The patients were divided into 3 groups according to age at the initiation of therapy: group I n=6 $\bar{X}$ chronological age 2.74 (0.87 - 4.43 years) bone age 0.92 $\pm$ 0.66 years; group II n=7 $\bar{X}$ chronological age 7.79 years (5.07 - 9.80 years) bone age 4.19 $\pm$ 1.89 years; group III n=10 $\bar{X}$ chronological age 13.38 years (10.07 - 15.75 years) bone age 8.64 $\pm$ 2.19 years. Patients of group I changed their height SDS from -4.44 $\pm$ 0.63 to -2.90 $\pm$ 0,78 over 4.79 years of treatment ($\bar{X}$ of increment 1.54 $\pm$ 0.79); group II from SDS -4.15 $\pm$ 0.47 to -3.19 $\pm$ 0.32 over 4.94 years of treatment ($\bar{X}$ of increment 0.96 $\pm$ 0.48) and group III from -4.77 $\pm$ 1.67 to -3.38 $\pm$ 1.39 over 5.05 years of treatment ($\bar{X}$ of increment 1.53 $\pm$ 0.99). Patients of group III attained final height of 155.5 $\pm$ 6.07 cm at -2.88 $\pm$ 0.91 SD of the normal mean. Growth response pattern was the same in the 3 groups of patients. Better impact on final height seems to be due to a longer time of treatment. Patients of group I attained at 7.53 years of age the same height standart deviation score as that of the final height of patients who started therapy at a later age.