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STATURAL GROWTH AND SKELETAL MATURATION IN CHILDREN WITH CONGENITAL ADRENAL HYPERPLASIA (CAH) Miras M.;Martín S. Muñoz; L. Testa; G. Alé Kaplan R.;Paez A.

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The statural growth of 49 children (29 F, 20 M) with CAH by deficit of 21-OH was analyzed. Mean age (mCA) upon diagnosis was 37.4 days (48 hs-9m) for 24 patients (48.9%) with salt wasting CAH (CAHsw) and 4.85 yr(13d-19yr) for 25 patients (51.02%) with simple virilizing CAH (CAHsv). Standard deviation scores (SDS) were analyzed for height (Tanner) and Bone Age (Greulich and Pyle). The group of CAHsv was subdivided into three age groups: 1)9 pat.∠of 6m: mCA 41 days (13d-4.5m) 2)11 pat.∠ of 10 yr:mCA 4.78 yr (2.5 yr-6.11 yr) and 3)5 pat.≥of 10 yr:mCA 12.19 yr(10.6 yr-19 yr). A follow up period of 4.75 yr (1.3 yr-16.8yr) was done in 41 patients (83.7%). SDS of height in CAHsw group diminished significantly from -1.62±1.99 (-5.23/+2) to -0.84±1.49) (-2.48/+2.76)at the last control.For CAHsv group the results were:

	Initial SDS	Last control SDS
Group 1 (∠6m)	+0.49±1.61(-1.5/+3)	-0.10±1.40(-2.7/+2.01)
Group 2 (∠10yr)	+2.25±1.70(-1.30/+4.6)	+1.57±1.16(+0.35/+4.50)
Group 3 (≥10yr)	-0.99±2.41(-3.28/+3.0)	-2.58±1.76(-4.7/+0.13)

Mean differences of BA for CA were -0.11 yr at diagnosis and -0.09 yr at the last visit in CAHsw. In CAHsv in two age groups analyzed: 1) ∠ 6m: diminished from --0.12 yr to -0.16 yr and 2) ∠ 10 y: from +5.05 yr to + 3.8 yr. Conclusions:Decreasing differences in SDS of height for CA were observed in both groups. They resulted significant in patients with CAHsw and group 2 of CAHvs. B A was not modified in children with CAHsw or CAHsv diagnosed before 6 months of age. Older children decreased their accelerated BA in 1.25 years during the period analyzed.

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RELATION BETWEEN INSULINEMIA (RI) AND GROWTH RATE (GR). Libman J.; Menichini A.;Miglietta A. Cátedra de Endocrinología, Facultad de Ciencias Médicas,U.N.R. Hospital de Niños "Víctor J. Vilela" y F.E.I. Filial Rosario, Argentina.

Brook et al (1988) reported a direct relationship between fasting IRI (IRIo) and GR. To confirm and project this observation, IRIo was determined and at 60 min (IRI60) of oral administration of 1.75 gr of glucose per Kg of weight in 40 children without demostrable pathology, 15 females, and 25 males, with a chronological age (CA of 11.75±2.01 years; the Tanner stage (ETa) was recorded at the time of the study. Results were correlated with GR as determined by 3 measurements over the previous 12 months. The statistical evaluation was done using a model of simple linear regression, determining the Pearson correlation coefficient for IRIo and IRI60 vs. GR, and a model of multiple regression with its corresponding correlation coefficient to determine the influence of CA ETa and GR upon the IRI levels. The IRIo levels were 10.70±5.46 and those of IRI60, 37.31±18.34 uU/ml, with a significant correlation with GR; the correlation coefficients being r 0.69 (p∠ 0.01) and 0.62 (p∠0.01), respectively. The multiple correlation coefficients were also significant when introducing CA and ETa. The association between IRI and GR is probably indirect, throught on increase of peripheral resistance to insulin induced by the increase in somatotropin, which is in turn determined by the secretion of sexual steroids during puberty. The greater demand imposed on the islets would account for the greater prevalence of the initiation of diabetes type I at puberty.

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BENIGN FAMILIAL HIPOCALCIURIC HIPERCALCEMIA. Yanicowsky M.L.;Fernández E.;Ortiz E.

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It is an uncommon disorder, of casual diagnosis, with asymptomatic hypercalcemia, normal PTH, variable phosphatemia low excretion of Ca in urine, parathyroid tissue histologically normal. With predominant autosomic pattern. Its prevalence and incidence is unknown. Physiopathology not yet defined. Without specific treatment, only symptomatic. Reason for the visit:Small size A5. Mother with history of metabolic alterations of Ca. Family study according to the model proposed by Law for diagnosis (*).

Criteria for diagnosis Necessary and present findings

	CI	A1	A2	A3	A4	A5
Calcemias(10.2/14mg%)	10.4	11.2	11	10.8	12	9.7
Pat.∠40 years	42	21	19	12	11	3
Calciuria ∠250mg/day	254	105	230	113	92	26
ClCa/ClCr ∠0.01	0.01	0.008	0.006	0.005	0.006	0.003

Normal PTH No Rx signs of hyperparathyroidism. No multiple endocrine disease.

Expected values

P adults 2.5/4.5 mg%	2.9					
children 4/6.5 mg%		5	4.08	5.4	5.06	5.6
Phosphaturia 0.34/1mg/d	0.51	0.59	0.95	0.91	0.52	0.94
Alk.Phosph (normal)	62IU	112IU	66IU	719IU	300IU	421IU

Symptoms compatible with the Syndrome:fatigue overweight, polydypsia, artralgias, constipation, cramps, neurological disorders. None trascendent. Poor Ca intake. Premature A5 (600gr) under study. C1 biliary and renal lithiasis.

Conclusion:A family is presented with benign HyperCa hypocalciuria, of casual diagnosis, but which prevents inadequate diagnoses, erroneous therapies (corticoids) and aggressive therapies (parathyroidectomies) which do not modify hyperCa.

(*) Ann Intern Med 102:511, 1985

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hUTPF FRACTIONATION BY FILTRATION AND AFFINITY CHROMATOGRAPHY PAGE-SDS ELECTROPHORESIS AND IMMUNOBLOTTING. Iñiguez G.;Pérez E.;Beas F. and Boric M.A. Instituto de Investigaciones Materno Infantil (IDIMI), Facultad de Medicina, Universidad de Chile-Chile

The human uterotrophic placental factor (hUTPF) is a protein obtained from term human placentas: biological actions have been described at the level of uterus, in the mammarian gland and in cultures of pre-implantation embryos. In women, it presents a peak of secretion in the first weeks of gestation. In human term placentas, saline and acid extrations were made, and an acid extract (AE) was obtained. The AE was chromatographed in Sephadex G-75 and the biological and immunological activity were obtained in the fraction excluded from the gel; this fraction was chromatographed in Sephadex G-200; three fractions were obtained, all with immunologic activity. The fraction excluded from G-200, after being purified by affinity chromatography in Concavaline A Sepharose presented, in gels of PAGE-SDS in gradient from 3 TO 12%, three main fractions whose molecular weights were: 270 KD, 51 KD and 27 KD. The three fractions were recognized by Immunoblotting with the antiserum generated against the fraction excluded from G-200 (results also observed by means of an EIA developed in our laboratory).

These results show that hUTPF obtained from placenta presents at least three molecular forms. Further studies will show which one or which ones present the biological activity and which one or which ones are the forms that circulate in plasma.

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EFFECT OF GROWTH HORMONE (GH) ON THE BODY COMPOSITION IN CHILDREN WITH GH DEFICIENCY. Mendoça B.B.;Osorio M.G.F.;Segura T.C.;Estefan V.;Arnhold I.J.P.;Guazzeli I.C.M.;Nicolau W.;Bianco A.C.

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In the present work we analyze the body composition in 9 prepubertal patients (5 boys and 4 girls) with ages between 6.2 and 14.1 years, with GH deficiency (GH peak ∠5 ng/ml after clonidine test and insulin injection test). The body composition was measured directly by "Rx dual-energetic densitometry" (DEXA), using the DPXL apparatus before and 99±15 days after treatment with GH at the dose of 0.075 U/Kg/day. Cases 1 and 2, with TRH deficiency were under thyroxin treatment in both evaluations.

% VARIATION AFTER TREAMENT					
BODY WEIGHT	FATTY MASS	LEAN MASS	BONE MINERAL C.	GROWTH VELOCITY	TIME (days)
+7.7	-8.4	+14.6	+5.6	0.9	105
+5.0	-18.6	+10.0	+4.5	2.6	98
+3.0	-21.8	+5.0	+4.5	1.3	100
+8.0	-7.3	+19.2	+6.9	2.2	91
+5.4	-18.5	+12.3	+1.0	2.2	87
-0.5	-30.8	+5.9	-1.3	2.1	94
+3.8	-25.2	+14.4	-1.1	4.3	134
-1.8	-76.9	-6.3	-1.4	2.5	98
+6.3	-19.1	+13.7	+4.1	1.9	84

Treatment with GH provokes in the short term an arrest of the fatty mass and an increase of the lean and mineral body mass.

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ALBUMIN AND PROTHROMBIN TIME CORRELATE WITH THYROID FUNCTION IN CHILDREN WITH CHRONIC LIVER DISEASE. Pasqualini T.;Cranillo E.; Rossi J.;Fainstein-Day F.;Balzaretti M.;Gutman RA.;Llera J.;D'Agostino D.

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Abnormalities in thyroid function have been reported in chronic liver disease (CLD). We studied 19 patients (P), 12 boys & 7 girls, aged 1.2-13.6 years (median 7.5) divided in 3 groups (G): G1, 9P with CLD with a prothrombin time (PT)≥ 50%; G2, 7P with PT∠50%; G3, 7P who had received orthotopic liver transplantation (OLT) 2-19 months before (4 were also studied pre OLT).Statistics were performed by analysis of variance & Tukey test. Results are shown in the table:

G	PT	Alb	Tbil	T3	T4	fT4	IGF-I
	%		nmol/L	pmol/L		pmol/L	U/ml
1	81.4	3.4	2.9	2.1	121.2	16.0	0.086
2	*30.3	*2.8	*9.8	*0.8	* 45.6	*7.4	0.085
3	87.8	3.8	1.3	1.7	* 92.8	14.5	* 1.52
p ∠	0.001	0.001	0.01	0.001	0.001	0.001	0.05

TSH levels did not show any significant variation. PT was correlated (p∠0.05) with Alb,T3,T4,fT4,IGF-I. Alb was correlated with T3,T4,fT4,IGF-I. In G2, 5P died 8-70 days after the study & the remaining 2P received an OLT after 58 & 76 days with favorable outcome. In G1, 4P received OLT after 5-18 months. In conclusion, we have found a correlation between thyroid & liver dysfunction; the presence of PT 50% & decreased thyroid hormone levels indicate an immediate disfavorable outcome. IGF-I levels increased after OLT.