95 T.R.ROMER*, K.KULA* and M.RACZKOWSKA*(Intr.by H.Krawczynska).Institute of Endocrinology,Medical Academy,Lodz,Poland. A case of interstitial-cell tumor of the testis followed up for five years:pre and post operative hormonal evaluation.

Patient T.W. was referred to us at age 6.5 because of enlargement of penis .Testes equal of normal consistency .Normal laboratory findings.At the age of 8 further enlargement of penis and public hair stage II were noted.The right testis was coarse and of hard consistency.The 17-KS excretion was increased and not dexamethason suppressible.The bone age 12 and height age 9 years,gonadotropins in low prepubertal range. Following the right orchidectomy 17-KS were normal level.One year after surgery androgenisation was in progress,growth velocity and left testis volume were increased.Level of gonadotropins were high.Authors suggest the need for gonadotropins suppression as a postoperative treatment regimen.

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Special form of dwarfism type A ?

We present a case of a special form of dwarfism type A who showed the same clinical picture of Illig and cols.'s first patient.

Newborn, height: 49 cm., weight: 2.900 gr. Since then, very slow growth. Flat facies, low nasal bridge and frontal bossing. Diminished secretion of GH and increased anabolic effect of HGH (high N retention: 36%). Other pituitary hormone levels were normal. Somatomedin activity was normal (10,4 mgr/ml).

Before treatment with HGH: 62 cm. (21m.) After treatment: 68 cm. (28m.). At that time we didn't detect HGH antibodies.

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ACTH and cortisol response to insulin hypoglycaemia in children with hypopituitary dwarfism.

A combined test of anterior pituitary function was performed in 29 growth hormone (HGH) treated children. Plasma ACTH(RIA) was measured at o and 4o min. and cortisol (isotope derivative techn.) at o, 2o and 4o min. after insulin (+TRH + LHRH). - Basal values for ACTH were identical in the 3 groups: I: 13 HGH treated children with "borderline" HGH response - II: 16 HGH treated children without HGH response - and III: 12 normal children(with short stature and/or delayed puberty) with normal HGH response to hypoglycaemia. 4o min. ACTH values were normal in group I (1 of 13 was below loo pg/ml) and subnormal in group II (4 of 16 were above loo pg/ml).

ACTH(pg/ml)	o min.	4o min. (mean, s.d., range)
I (borderl.)	36 +/÷ 19 (12-64)	189 +/÷ 63 (63-29o)
II(hypopit.)	38 +/÷ 17 (21-82)	79 +/÷ 54 (27-211)
III(normal)	36 +/÷ 19 (11-76)	176 +/÷ 55 (1o7 -25o)

9 of 1o children with 4o min.ACTH value above loo pg/ml in group I had 4o min. cortisol values above 18 µg/loo ml.8 of 11 (II) had corresponding low values for ACTH and cortisol

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Effects of 24 hour fast in children with idiopathic hypopituitarism.

The fast was performed in 17 children aged 3 to 17 years, with growth hormone (GH) deficiency isolated in 1O, associated to ACTH deficiency (according to metyrapone and insulin tests) in 7. Fasting GH levels remained <1 ng in all cases, while plasma cortisol levels increased proportionally to the blood glucose (BG) in isolated GH deficient subjects and in 4 out of 7 subjects with ACTH deficiency, demonstrating an incomplete defect. When compared with controls BG ($p<0.001$), alanine ($p<0.005$) and FFA ($p<0.04$) values were significantly lower, without correlation with age. There was no significant differences between isolated GH or GH+ACTH deficient patients. The data suggest that in hypopituitary dwarfs the hormonal deficiencies, mainly GH deficiency, lead to a lower rate of protein and lipid mobilization during fast, resulting in a decreased BG control. Moreover the 24 hour fast offers an additional way of investigation of ACTH deficiency.

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Pituitary function in congenital rubella

Growth hormone deficiency in children with congenital rubella was first reported in 1977 by Preece et al. In our study, pituitary function in five children (age 2-8 yrs) with congenital rubella was investigated. None of them showed clinical evidence of GH deficiency or other endocrinopathies like diabetes mellitus or hypothyroidism. Serum GH measured after Insulin and after Glucagon by RIA was normal. Serum LH, FSH (after TRH), thyroxin and triiodothyronin assayed by RIA, Cortisol by protein binding technique were normal. Therefore, no endocrinopathies could be demonstrated in our five patients.

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Endocrine function in three children with Sotos' syndrome.

Endocrine studies have been carried out on three children with excessive height associated with advanced bone age, acromegalic features and evidence of brain dysfunction in the form of mental retardation and an abnormal EEG (Sotos' syndrome). Two children, a girl aged 4 years and a boy aged 3 years, had hydrocephalus and in them there was a paradoxical rise of growth hormone in response to a glucose load and a high resting prolactin level which rose excessively with TRH stimulation but suppressed during an L dopa test. Neither showed clinical evidence of precocious puberty. The other, a boy of 7 years, without air encephalographic evidence of hydrocephalus, had completely normal endocrine test results. These results show that hypothalamic dysfunction may be demonstrable in Sotos' syndrome by the use of appropriate tests.