

Neonatal characteristics of GH deficiency in 107 children

Introduction

GH deficiency (GHD) rarely reveals at birth. Pregnancy is proceeding normally. The size and weight are generally normal and the birth occurs at terms. In some cases, neonatal markers and other pituitary deficits are present and allow early diagnosis.

OBJECTIVE Report neonatal characteristics of GHD

Population, methodology

107 children GHD were followed. The interrogation noted the progress of pregnancy, childbirth, weight and size and the presence of signs for other hormone deficiencies: hypoglycemia, jaundice, micropenia, cryptorchidism. Clinical examination sought other neonatal GHD markers as midline abnormalities (M A).

Discussion

The clinical presentation of the GH deficiency varies with age at diagnosis. In the neonatal period, diagnosis is difficult because anthropometric parameters are normal in general and birth was uneventful; The clinical presentation shows few symptoms thus delaying the age at diagnosis. Symptoms that may be present are linked to metabolic impact of growth hormone: Hypoglycemia is the most common symptom; It is related to a deficit in the lipolysis • It is often trivialized or may go unnoticed: its manifestations are sometimes frustrated or atypical, even if hypoglycemia is deep. It can cause seizures. The growth hormone deficiency may be suspected in a persistent neonatal jaundice. The signs can also be combined with a severe arterial hypotension salt loss syndrome or micropenia with cryptorchidism; It is then associated with multiple pituitary deficiency that reflect the very symptomatic clinical picture

It is important to be vigilant to persistent and profound hypoglycemia repeated: In such circumstances, it is important to ask the indications for hormonal balance (measurement of cortisol and growth hormone at the time of hypoglycemia to test the HPA axis and growth hormone, TSH and FT4 and and urine ionograms to explore the posterior pituitary gland thyroid). Indeed diagnosis delay can engage the vital prognosis Midline anomalies must also search hypopituitarism, and hypopituitarism must look for abnormalities of the median line, by performing an ophthalmologic examination (optic nerve hypoplasia), and a brain MRI

Results

94.4% are born at term. The percentage of prematurity is not different from general population 5.6% vs 11.2 $p = 0.07$ The delivery was normal in 84.1%

Neonatal dystocia was observed in 15.9%. It is not different from general population 15.9% vs 15.34% $p = 0.87$

In 47.05% dystocia is associated with a breech delivery. This percentage is not different from general population 7.74% vs 6.29 $p = 0.63$. The average size at birth is 50.3 ± 2.05 cm for males 49.7 ± 1.05 cm for girls. It is not different of theoretical normal size for gestational age. It is the same for the average birth weight: $3,5 \pm 0.72$ kg and $3,3 \pm 0.75$ kg

57.94% showed signs for a congenital GH deficiency: - Abnormalities of the external genitalia in 66.12% of boys: micropenia isolated or associated with cryptorchidism: 24.2%; M A: 37.38%; Craniofacial and visceral malformations: 0.84%

- In 7.47%, other anomalies were reported during neonatal period: jaundice (n = 4) hypoglycemia (n = 4)

Conclusion

GHD rarely is rarely revealed to the neonatal period. The existence of signs of other hormone deficiencies and M A should evoke it precociously

