Type 1 diabetes mellitus and precocious puberty: rare association

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Precocious puberty is defined as pubertal development that begins at an earlier age than expected; most pediatric endocrinology subspecialists use cutoff ages of 8 years for girls and 9 years for boys.

We reported in this case, rare association between type 1 diabetes mellitus and precocious puberty.

Clinical examination

- Weight: 23 kg (+1.65DS)
- Height: 121 cm (+2.04 DS)
- BMI = 15.70 Kg/m²

- Tanner classification: A1 P3 S3
- Vaginal mucosa was estrogenized.
- Growth velocity: 8.5 cm/years

Are there any signs of estrogenic impregnation?

- Pelvic ultrasound:
  - Uterine size: 37 mm
  - Ovarian size and volume:
    - L: 15.9 mm x 11.1 mm
    - R: 17.4 mm x 12.3 mm.

Bone age: 8 ans,

Chronological age: 6 ans

We present a girl with type 1 diabetes developed at the age of 3 years, with good glycemic control using insulin.

At the age of 6 years child had breast enlargement, height increase, and an increase in growth velocity.

Biochemically and MRI

- GnRH stimulation test: LH = 5.8 IU/L
- MRI: NL

Central precocious puberty idiopathic

Treatment: GnRHa
(DECAPETYL®, 1 inj/mois IM)

Conclusion

- Precocious puberty and type 1 diabetes is a rare association.
- The relationship has not been determined.