AUTOIMMUNE POLYENDOCRINE SYNDROME TYPE 2 AND PRECOCIOUS PUBERTY: A RARE ASSOCIATION

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INTRODUCTION

Precocious puberty is a common problem affecting up to 29 per 100,000 girls per year. It is defined as the development of secondary sexual features, at a younger age than the accepted lower limits for age of onset of puberty, namely 8 years in girls and 9.5years in boys.

AIM

We report the case of a precocious puberty in an 8-year-old and 11months girl with diabetes mellitus type 1 and autoimmune hypothyroidism followed-up in the department of Endocrinology-Diabetology-Nutrition of Mohammed-VI University Hospital Center, Oujda, in the eastern of Morocco.

CASE REPORT

An 8-year-old and 11months girl was admitted for the first time to our department for unbalanced diabetes type 1 that was discovered at the age of 5years, for which she was put on basal bolus insulin regimen.

The physical examination at admission revealed a breast development stage III according to Tanner staging and a development of pubic hair stage II. The age of onset of secondary sexual characteristics was around 8years; unfortunately the parents were not alarmed and didn't consult earlier. The young girl had an advanced height at +1SD (standard deviation) with a bone age of 8years and 6months.

The patient underwent gonadotropin-releasing hormone (GnRH) stimulation test that revealed a peak luteinizing hormone (LH) concentration at 6,47 mUI/ml. Pituitary magnetic resonance imaging (MRI) was normal. Therefore, the diagnosis of idiopathic central precocious puberty was confirmed.

Nonetheless, since the patient had a normal growth velocity and a comforting bone age, GnRH agonists were not used. Furthermore, the screening for autimmune diseases in the patient revealed positive *thyroid peroxidase antibodies (TPO antibodies) at* 38,47UI/ml (normal range < 34 UI/ml). The young patient developed hypothyroidism 2 months later and was put on substitutive hormone therapy.

During a regular follow-up of one year, the patient had a sustained normal growth velocity.

CONCLUSIONS

A review of literature of puberty in girls with diabetes type 1 concluded that the age of onset of puberty in young girls with diabetes mellitus type 1 seem to be within normal limits, however some patient experience pubertal delay due to poor glycemic control [1].
Our patient presented with a precocious puberty, this association with autoimmune polyendocrine syndrome type 2 has never been described before. Further investigations are necessary in order to comprehend the particularities of this unusual association.

REFERENCES

[1] Codner E, Cassorla F. Puberty and ovarian function in girls with type 1 diabetes mellitus. Horm Res. janv 2009;71(1):12-21.

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