Case Presentation A 6.4 year old girl presented with acne, pubic hair and body odour.

Diagnosis of CPP was performed on the basis of clinical signs of central puberty (breast Tanner 2 and pubic hair Tanner 2), increased basal gonadotrophine hormones (LH 4.6 IU/L, FSH 3.7 IU/L, E2 109 pmol/L) and growth spurt (height on 1.6 SDS). Her bone age was assessed to be 7 years.

Brain Magnetic Resonance (MRI) did not disclose any abnormality. Treatment with GnRH analogues were started. Precocious puberty was well controlled by pharmacological therapy and both sisters reached their final height (163.8 and 159.1 cm) in accordance with midparental height (MPH 165cm, 0.6 SDS).

As CPP was diagnosed in both dyzygotic twin sisters, we sought for a genetic cause.

Coding regions of the MKRN3 gene and exon-intron boundaries were analyzed using Sanger sequencing. Pathologic heterozygous variant NM_005664.3:3:c.475_476insC (NP_005655.1:p.Ala162Glyfs) of MKRN3 gene was identified in both siblings.

Conclusion We want to highlight the importance of genetic analysis in cases of familial CPP, providing grounds for genetic counseling in later life.

204 CASE REPORT OF RESISTANCE TO THYROID HORMONE WITH MUTATION TO THE THYROID β RECEPTOR GENE
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Background The thyroid glands play a key role in energy metabolism and are critical for brain development, which is sensitive to early growth hormone and thyroid hormone deficiencies.

Case 1: A 3.5-year-old girl was admitted with 3 months history of polydipsia, polyuria, nycturia and 11 kg weight loss. In initial laboratory evaluation T1DM was confirmed (hyperglycemia of 26.9 mmol/L, ketonemia of 5.1 mmol/L, significant ketonuria and glucosuria, HbA1c 17.1%, C-peptide 0.18 mmol/L and positive antibodies), but without sings of ketoacidosis (pH 7.411, bicarbonate 21.6 mmol/L). Treatment with basal/bolus regimen was started. On day of the hospitalization patient began to complain of impaired vision. Biomicroscope examination showed bilateral central nuclear cataract with visual acuity of 0.8 on both eyes. On 25-th day patient had normal visual acuity, with full transparency of lens.

Conclusion Early diabetic cataract although a rare complication of T1DM population, requires an initial screening as well as continuous surveillance as a measure of prevention since it is the leading cause of visual impairment in pediatric T1DM patients, especially in patients with long-term symptoms of T1DM and high levels of HbA1c. Additional studies are needed to further explain the etiological cause and therefore improve the prevention and treatment of diabetic cataract in population of children and adolescents.