Sequelae in giant prolactinoma in a teenage boy

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The authors are employees of Civico Hospital. They declare that no other conflict of interest exists.

Introduction

Macroprolactinomas are rare during childhood. Hypopituitarism is a common feature and recovery of pituitary function was reported following cabergoline therapy.

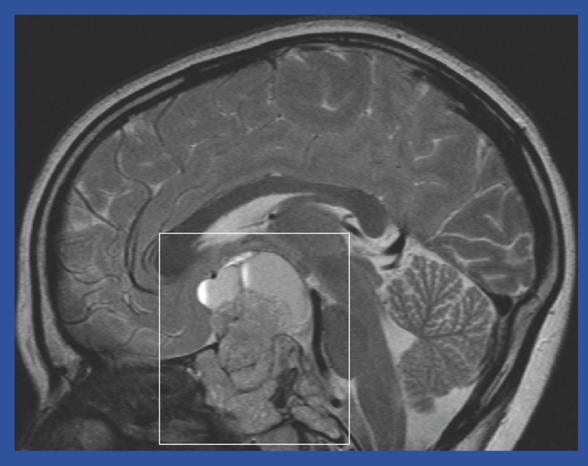
Case report

We present a case of 13 year-old boy with macroprolactinoma who responded to cabergoline therapy with a complete regression of the tumor with a partial empty sella.
He complained of a decreased of right vision since one year.

Investigations

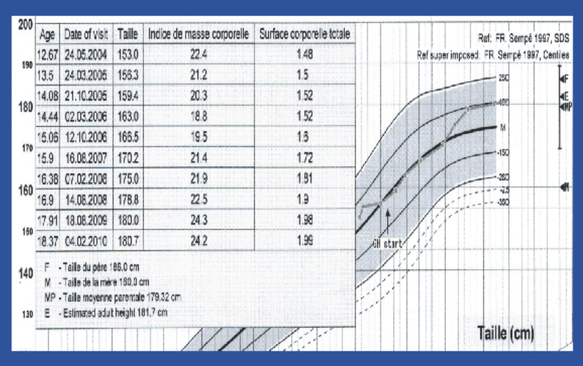
Evaluation of anterior pituitary function showed an elevated serum prolactin (15.900 mU/l n.v. 56-278 mU/l), normal cortisol, thyroid function and low insulin-like growth factor 1 (IGF-1).

MRI of the brain revealed a 63 × 59 × 56 mm sellar mass with predominant suprasellar extension compressing the optic chiasma with right temporal lobe and posterior cranial fossa extension.



Cabergoline was initiated initially at 1 mg/week and then at 2 mg/week with a normalization of the vision and a progressive regression of the tumor size.

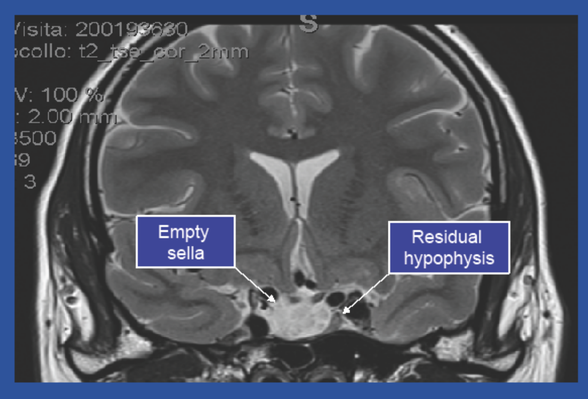
During the year after the diagnosis he presented an important reduction of growth velocity (-2.46 ds) with persistent low IGF-1 and a delayed puberty. An arginine-LHRH-TRH test was done and revealed a deficit of growth hormone (GH) with low values of gonadotropins.



Then he started a growth homone replacement therapy that it was stopped after five years when an arginine retest revealed an adeguate hormone production (GH peak >3 ng/ml) for bone age (Greulich pyle 18 years).

In suspicion of an hypogonadotropic hypogonadism to induce pubertal development he received three injection of intramuscular testosteron with subsequent normal testosteron level and adequate pubertal progression.

On the last control the endocrine function was all within normal limits and MRI revealed a partial empty sella with a residual thin adenohypophysis.



Conclusion

Cabergoline is recommended as first-line therapy for prolactinoma for excellent safety profile. However the optimal withdrawal strategy and the accurate recurrence rate associated with cabergoline withdrawal remains uncertain.

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