

Atypical Presentation of Pituitary Macroadenoma in an adolescent girl: Central Hypothyroidism and Attenuated Pubertal Growth Spurt.

Nada Alaaraj, Noor Hamed, Shayma Ahmed, Ashraf Soliman
Department of Pediatrics, Hamad General Hospital, Doha- Qatar



Introduction

Hyperprolactinemia (HPrl) secondary to macroadenoma is a rare endocrinopathy in childhood but represents one of the most frequent forms of pituitary adenoma.

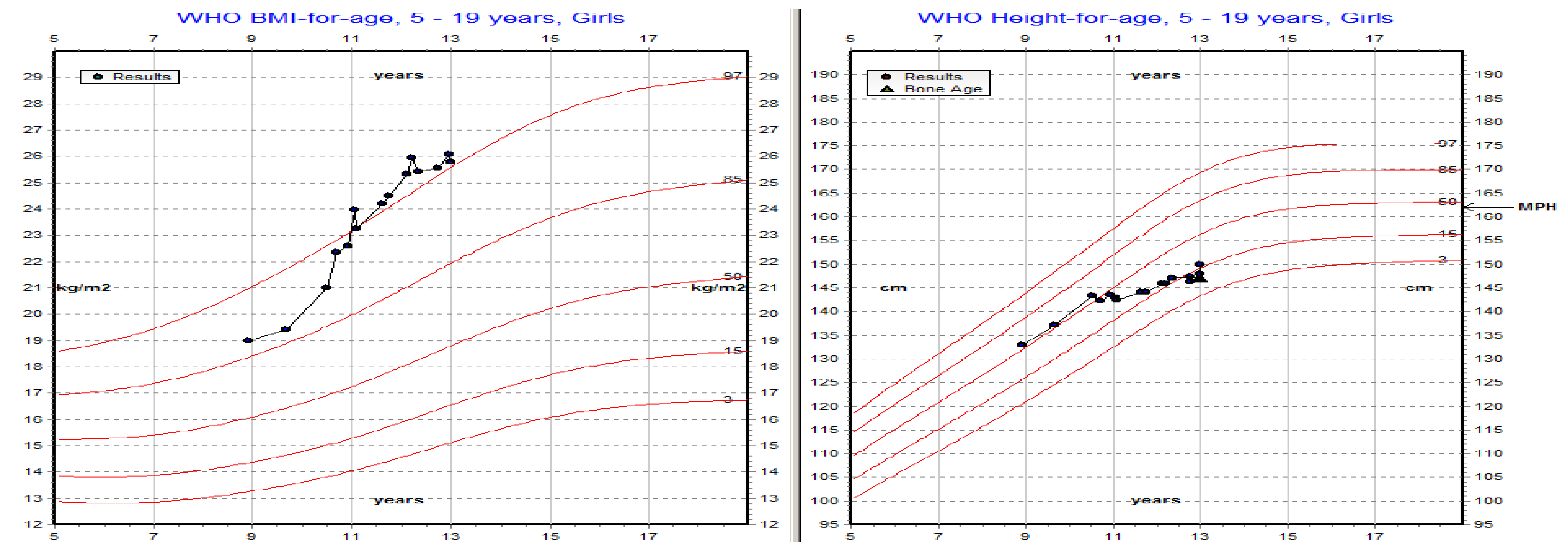
Case report

- A 12yr old girl was referred for assessment of progressive weight gain in the last 1.5 years. Despite trials of weight control by changing the dietary habit and daily exercise weight her BMI SDS increased from 1.2 to 2.2. This was associated with progressive fatigability and a decrease of her HtSDS from (0 to -1.2).
- There was no history of headache, visual deficit, nausea or vomiting, change in school performance or sleeping pattern, heat/cold intolerance, galactorrhea, polyurea, or polydipsia.
- Physical examination revealed normal vital signs, HtSDS = - 1.2, BMI SDS = 2.2, Mid-parental Height SDS = - 0.17 and annual growth velocity = 3cm/year (-2SD).
- Her breast and pubic hair were at Tanner stage 3.
- She had normal neurological exams and normal eye movements with a normal visual field.
- Lab tests showed low FT4 and relatively low TSH twice (12.6 and 9.2 pmol/L, TSH = 1.1 and 1.2 mIU/L respectively). Her peak growth hormone after clonidine provocation was 4.43mcg/L. The bone age was 13 years.
- Pituitary MRI showed: a well-defined intra and suprasellar mass lesion measuring about 2.2 x 1.7 cm seen at the left lateral and paramedian aspect of the pituitary gland, extending to the left cavernous sinus and encasing the cavernous ICA completely.
- The girl was started on levothyroxine and Cabergoline therapy. A trial of Growth hormone therapy was started then on hold after raised in IGF-1 to +2SD.

Conclusion

Attenuation of a pubertal growth spurt and pubertal progression and central hypothyroidism could be the presenting manifestations of pituitary macroadenoma in adolescents even without neuro-ophthalmic signs or galactorrhea.

Labs and figures



	4/2019	10/2019	12/2019	01/2020
TSH (N:0.5- 4.3mIU/L)	1.06	1.18	0.3*	0.78
FT4 (N:12.9-20.6pmol/L)	12.6 (L)	12.1 (L)	15	9.2 (L)
IGF-1	263	185	512**	232
LH		1.2		0.8
FSH		2.9		3.4
Estradiol		56.6		53.6
Cortisol (Am)				233
ACTH (Am)				35
Prolactin (mIU/L)				56,487 (= 2655 ng/L)
Serum osmolality				288
Urine osmolality				795

*On Levothyroxine 50mcg and therapy hold for 1 week, ** on GH 0.05mg/kg/day

Contacts:

Prof. Ashraf Soliman
atsoliman56@gmail.com
Nada Alaaraj
nadaalaaraj@gmail.com