

# Cushing syndrome due to adrenal adenoma in an adolescent patient and successful treatment with laparoscopic surgery

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- 👉 Cushing syndrome (CS) is a rare disease in children associated with weight gain and stunting of their linear growth. In older children, pituitary adenomas are a more common cause of CS.
- 👉 The clinical presentation of CS varies in children such as truncal obesity, striae, facial plethora, hypertension, and PKOS-like (polycystic ovary syndrome) feature.
- 👉 Here in we report an adolescent presented with obesity, short stature and late puberty but without metabolic syndrome or hirsutism and diagnosed as unilateral adrenal adenoma.

## Case

**Decimal year:** 15,1

**Weight:** 47,3 kg

**Height:** 136,6 cm (-4.3 SDS)

**Relative weight%:** %145

**Bone age:** 11 years old

### Symptoms

Short stature and amenorrhea

### History

Weight gain and stunting of her linear growth especially last three years

### Physical examination

Blood pressure 110-70 mmHg

Facial plethora

Non-specifically maculopapular rash on the extremities

Puberty T? (lipomastia) P4

### Pelvik USG

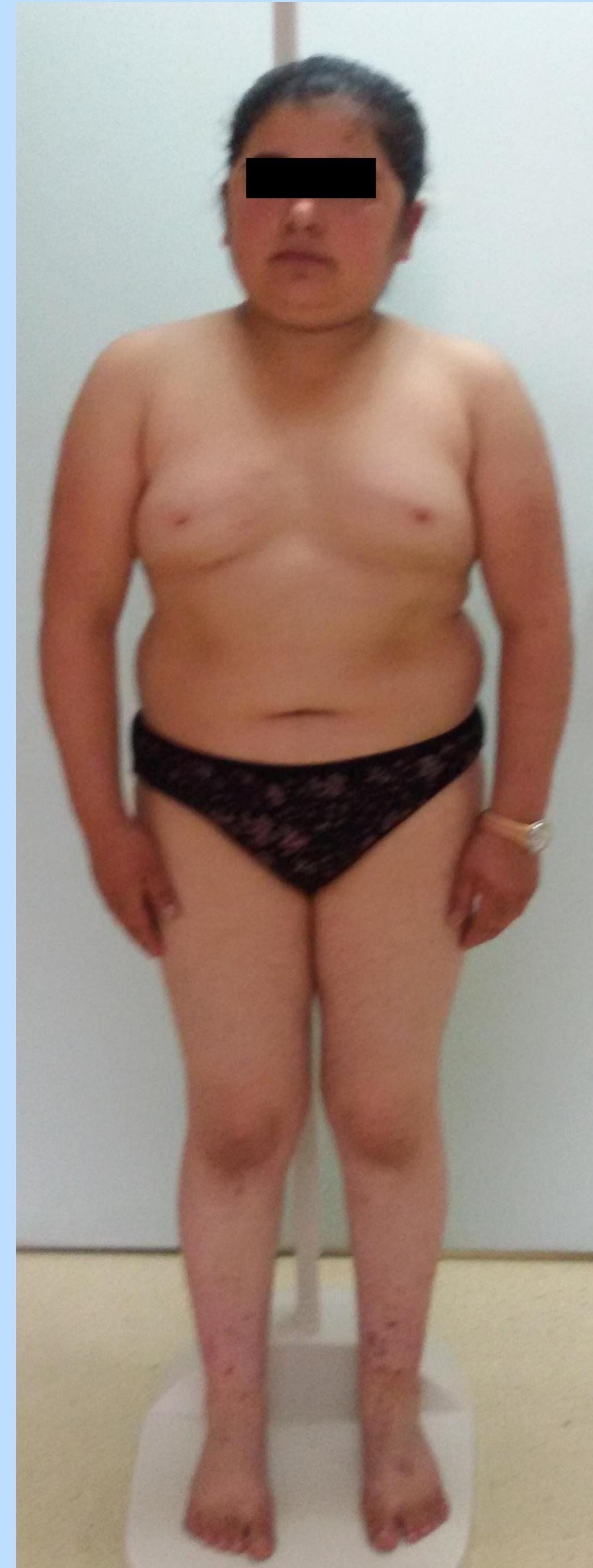
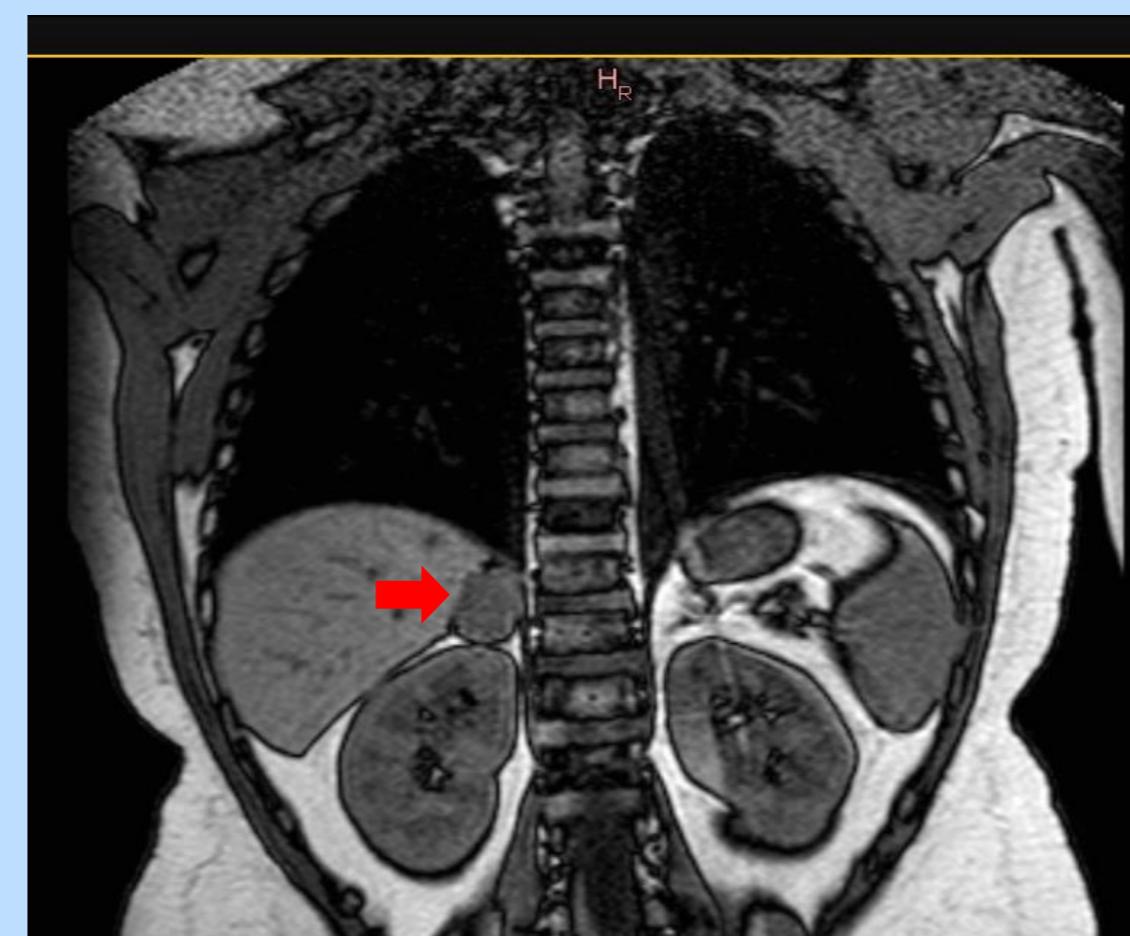
Prepubertaly

### Laboratory

ft4, TSH	: Normal
IGF-1	: 343 ng/ml (+1 SDS for bone age)
FSH	: 0.17 mIU/ml
LH	: 0.05 mIU/ml
E-2	: 31 pg/ml

### Result

Basal cortisol	19.71 mcg/dl
Basal ACTH	< 5 pg/ml
24 urinary free cortisol	1111.3 mcg/dl (829 mcg/m <sup>2</sup> /d)
DHEA-SO <sub>4</sub>	57.5 mcg/dl
Androstenedione	0.79 ng/ml
Total testosterone	101 ng/dl
Cortisol after low dose dexamethasone suppression test	23.69 mcg/dl



Before operation



Six month after operation

A right surrenal mass, which was 3.0 cm axis

## Conclusion

- 👉 Cushing syndrome and adrenal adenoma should be kept in mind in patient with short stature with obese children and late puberty adolescent.
- 👉 All hormones secreted from the adrenal cortex should be measured in every patient with an adrenal tumor.
- 👉 Laparoscopic adrenalectomy is a safe and feasible, method for curative therapy for patient with surrenal adenoma.

