# Multiple complications of severe hyperandrogenism in a postmenopausal woman

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### Introduction

Severe hyperandrogenism in women is not only associated with cosmetic concerns but it also increases the risk of neoplastic (endometrial, breast cancer), cardiovascular, respiratory and metabolic complications.

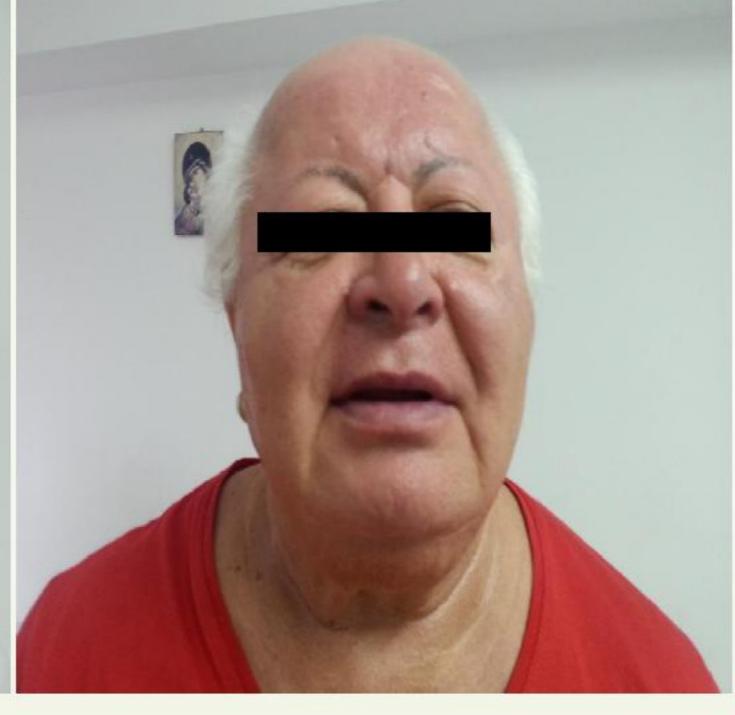
# Case report

A 68 years-old woman with a recent history of severe arterial hypertension, cardiogenic pulmonary edema, diabetes mellitus, severe respiratory failure, marked obesity was referred to our department due to her severely androgenic phenotype.

## Clinical examination

The clinical examination showed android obesity, severe male-pattern alopecia, marked hirsutism involving the face and the trunk, deepening of the voice.





Severe, resistant arterial hypertension with hypertrophic cardiomyopathy and congestive heart failure were also present. The patient associated chronic respiratory failure, severe obstructive sleep apnea syndrome, diabetes mellitus.

# Laboratory evaluation

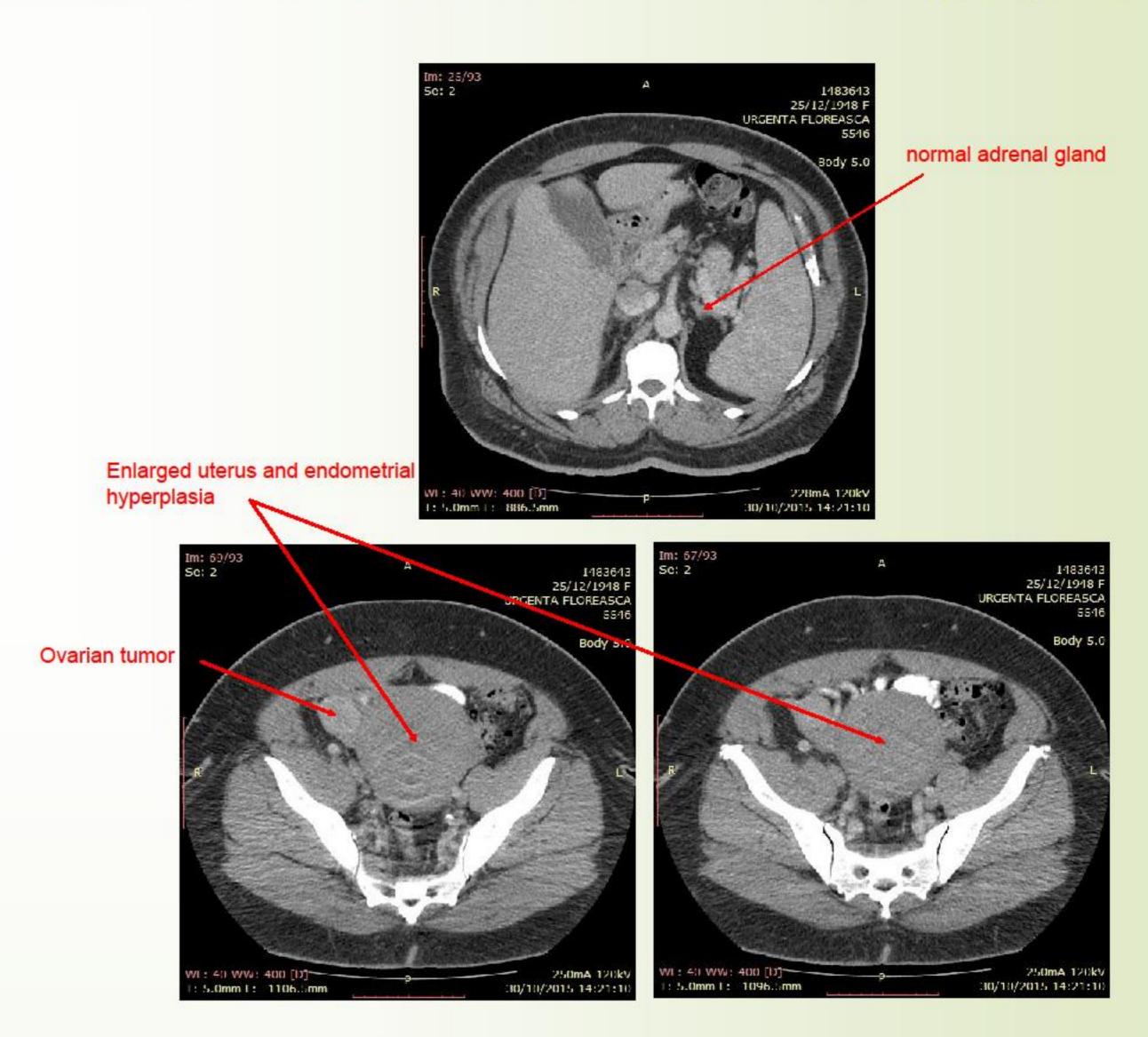
The endocrine evaluation revealed:

- erythrocytosis
- an extremely elevated serum testosterone level (>16.6 ng/ml)

- High serum estradiol (186 pg/ml)
- Low gonadotropins (FSH 0.3 miu/ml, LH 0.42 miu/ml),
- normal adrenal function, with normal DHEAS and 170HP levels, elevated androstenedione
- High estradiol (186 pg/ml), discordant with the postmenopausal status

## **Imaging**

Computed tomography of the abdomen showed normal adrenal glands, right ovarian tumor, markedly increased uterine volume with severe endometrial hyperplasia.



#### **Treatment**

Surgery was recommended and performed very recently, with significant early clinical improvement. As soon as 3 weeks after surgery the blood pressure and glycemic control improved markedly.

The histopathological examination revealed a benign ovarian thecoma with no suspicious endometrial findings.

#### Conclusions

The presence of severe hyperandrogenism in postmenopausal women is frequently the result of an androgen-secreting tumor and can be associated with important complications.

