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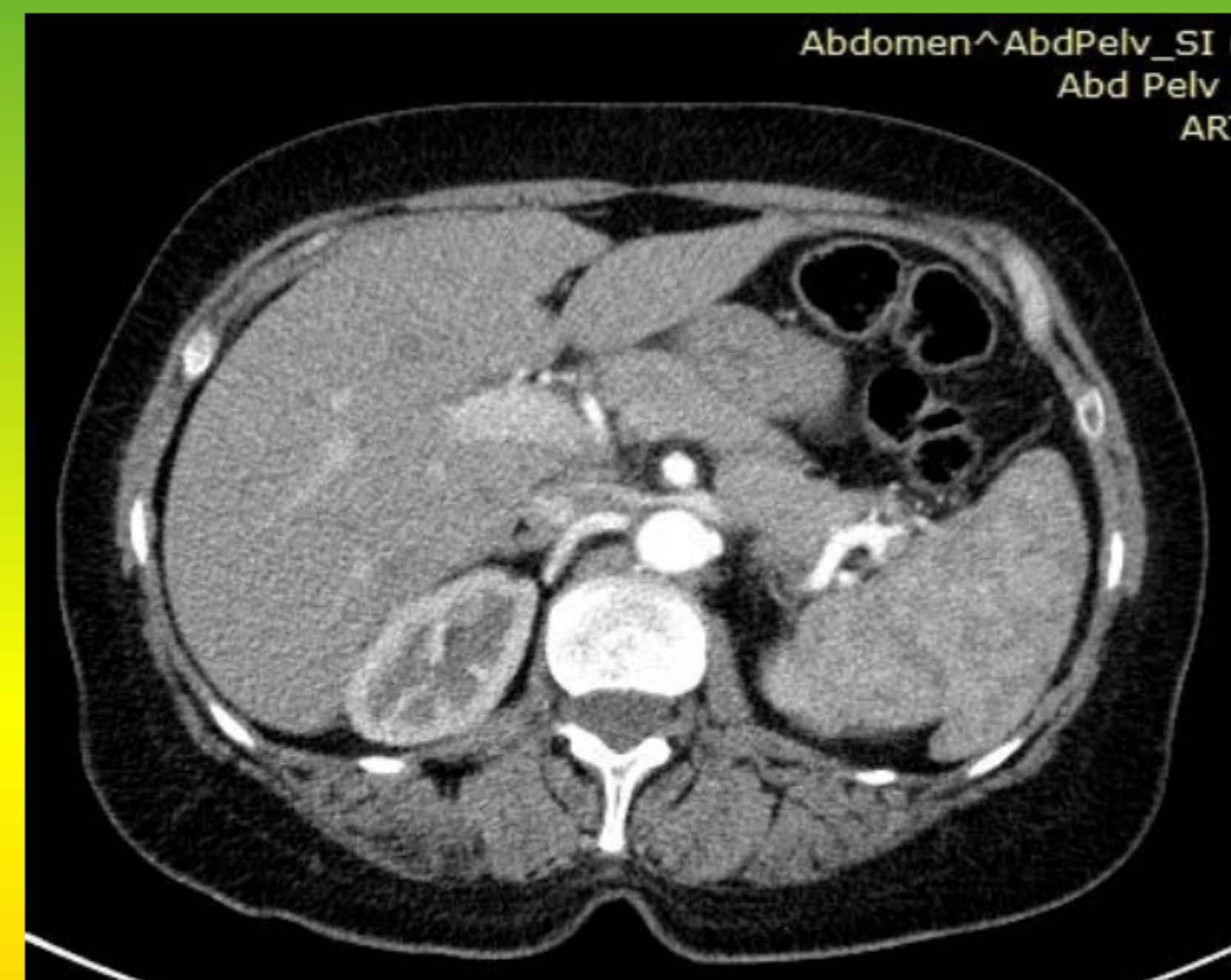
Introduction

Cushing's syndrome (CS) is correlated with prolonged exposure to high levels of glucocorticoid hormones. Although the most common cause is exogenous adrenal tumors incidentally discovered (incidentaloma) may

Material & Methods

Specific tests for CS have been used: morning plasma cortisol and circadian rhythm, plasma ACTH, testosterone, dexamethasone (DXM) suppression test.

Adrenal mass



Date	Parameter	Value	Normal Range
28.03.2012	TSH	1.79 µIU/ml	0.4-4 µIU/ml
	FT4	1.20 ng/dl	0.89-1.76 ng/dl
	Morning plasma cortisol	145.4ng/ml	70-225 ng/ml
	Night plasma cortisol	84.8 ng/ml	
	ACTH	10.6pg/ml	7-46 pg/ml
	testosterone	2.46ng/ml	0.2-0.75ng/ml
2.06.2012	Morning cortisol after 1 mg DXM	75.7 nmol/l	< 138 nmol/L
	Morning plasma cortisol	12.55ng/ml	70-225 ng/ml
	Morning plasma cortisol	578.3 nmol/l	171-536 nmol/l
	ACTH	14.8 pg/ml	7-46 pg/ml
	Morning cortisol after 1 mg DXA	0.90 µg/dl	< 1.8 µg/dl

Results

A 50-year female associating diabetes mellitus and hypertension, was admitted for very high blood pressure and centripet obesity. Clinical examination revealed: moon face, plethora, telangiectasia. Normal thyroid tests were found, a morning plasma cortisol of 145.4ng/ml (N:70-225ng/ml) with normal circadian rhythm, ACTH of 10.6pg/ml (N:7-46pg/ml) and a total plasma testosterone of 2.46ng/ml (N:0.2-0.75ng/ml). Lack of suppression at 1 mg DXM overnight test established CS diagnosis of adrenal etiology (a right adrenal tumor of 39 mm was identified at CT scan). The tumor was removed and after surgery clinical improvement was associated with a morning cortisol of 18.99ng/ml 18 days after surgery and a level of 12.55ng/ml 3 months later.

9 months after surgery, endocrine evaluation indicated a raise of morning plasma cortisol with normal ACTH and suppression at DXM test. CT detected a left adrenal mass of 24/20/13mm. Given the results of endocrine evaluation suggesting an incidentaloma, follow-up was recommended.

Conclusion

Adrenal incidentaloma management varies on symptoms, size, lateralization, etc. The pathogenic traits in asynchronous bilateral adrenal masses are still incompletely understood.

