SEX-RELATED DIFFERENCES IN THE PRESENTATION AND OUTCOMES OF CUSHING'S DISEASE

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INTRODUCTION

Cushing's disease (CD) presents a marked female preponderance, with a female-to-male ratio of 3-8:1, but whether this skewed sex distribution has any relevance to the presentation and outcomes of CD is not well understood.

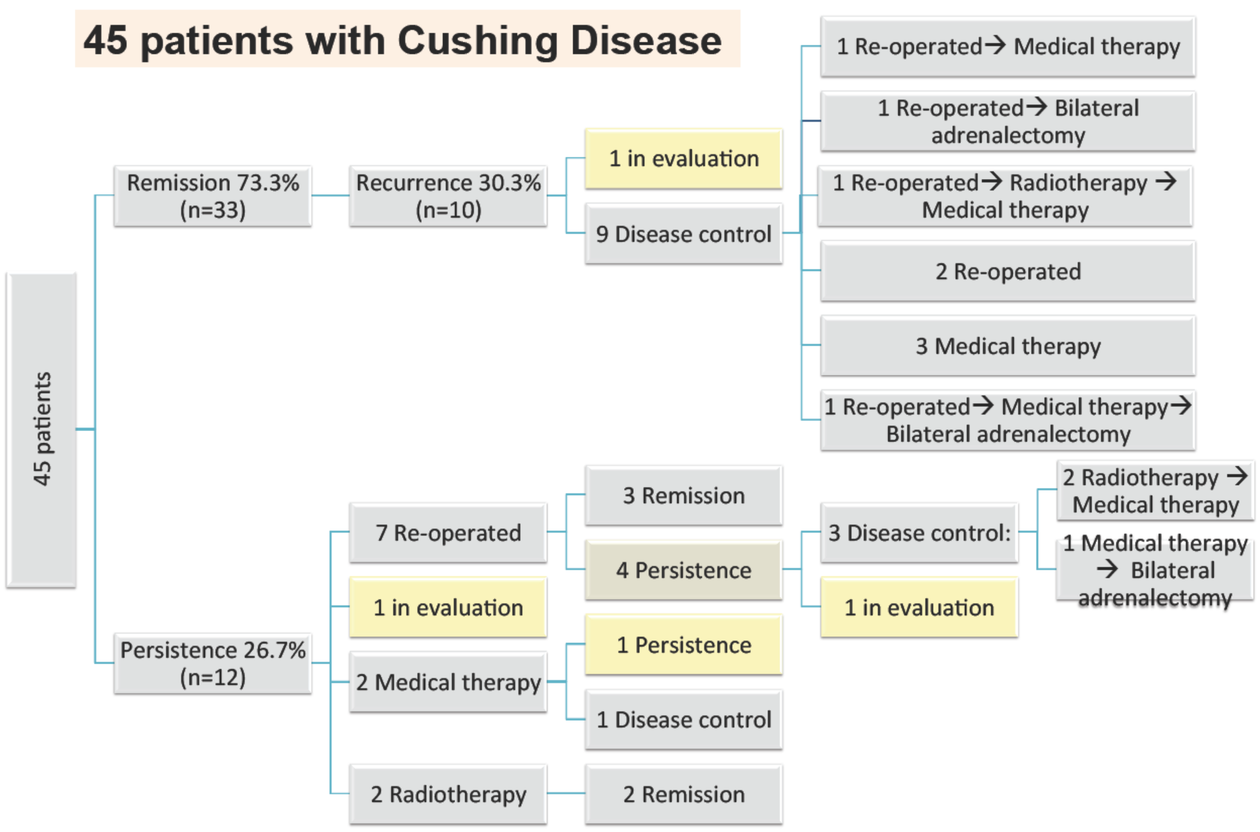
OBJECTIVES

To evaluate sex-related differences in the presentation of CD, as regards: biochemical indices of hypercortisolism; complications of disease and outcomes.

PATIENTS AND METHODS

- ✓ Retrospective observational study of patients with CD who underwent pituitary surgery between January/1998-October/2013.
- ✓ Clinical data were evaluated at diagnosis and at the last evaluation of hospital consultation.
- ✓ Remission was defined as normal urinary free cortisol and normal plasma cortisol after overnight or low-dose dexamethasone suppression test.

RESULTS



87% (n=39) women

Mean age at diagnosis **38.2**(12.9) **years-old**

Median follow-up **90.4**(56.7) **months**

❖ **Metabolic and psychiatric disorders**

Diabetes	23% (10/38)	50% (3/6)
Hypertension	61% (24/39)	83% (5/6)
Dyslipidemia	40% (15/37)	66.7% (4/6)
Psychiatric disorders	56.8%(21/37)	16.7% (1/6)

❖ **MRI**

Microadenoma	57%	33%
Macroadenoma	19%	50%
No image	19%	17%
Signal alteration	5%	-

❖ **Biochemical control of hypercortisolism after pituitary surgery**

Remission	74.4% (29/39)	66.7% (4/6)

❖ **Histology**

Expression of ACTH	79.5% (31/39)	100% (6/6)

❖ **Biochemical evaluation at diagnosis**

	CORTISOL 8H, µg/dL (Mean [SD])	N	ACTH 8h, ng/L (Mean [SD])	N	Urinary free cortisol, µg/dia (Mean [SD])	N	Cortisol levels after overnight dexamethasone suppression test , µg/dL (Mean [SD])	N	Serum cortisol after 2-day dexamethasone suppression test µg/dL (Mean [SD])	N
Female	26.8 (10.5)	33	70.5 (38.7)	34	472.5 (422.5)	34	22.8 (15.4)	19	13.3 (11.0)	19
Male	31.3 (13.1)	6	106.5 (46.5)	6	364.7 (311.0)	6	23.0 (22.6)	2	4.,5 (51,7)	2
p	0.351		**0,048**		0.556		0.986		**0.015**	

DISCUSSION AND CONCLUSION

Biochemical indices of hypercortisolism, metabolic and psychiatric disorders, as long as outcomes of CD differed by sex. Understanding this dimorphic pattern may be relevant in order to define the adequate diagnostic work-up and follow-up of these patients.

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