

Pituitary apoplexy induced remission in a macroadenoma Cushing Disease

Pedro Souteiro¹, Sandra Belo^{1,2,3}, Maria Manuel Costa^{1,2,3}, Rita Bettencourt-Silva^{1,2,3}, Daniela Magalhães^{1,2,3}, Joana Queirós¹, Paula Freitas^{1,2,3}, Lígia Castro⁴, Josué Pereira⁵, Davide Carvalho^{1,2,3}

¹ Department of Endocrinology, Diabetes and Metabolism, Centro Hospitalar São João, Porto, Portugal, ² Faculty of Medicine of University of Porto, Porto, Portugal, ³ Instituto de Investigação e Inovação em Saúde, University of Porto, Porto, Portugal, ⁴ Department of Pathology, Centro Hospitalar São João, Porto, ⁵ Department of Neurosurgery, Centro Hospitalar São João, Porto

INTRODUCTION

Pituitary macroincidentalomas are rare, being found in only 0.2%-0.3% of the patients that undergo imaging studies for an unrelated reason. The majority of them are non-functioning adenomas.

CASE REPORT

August/2015

- 76-year-old woman
- Past Medical History:
 - Type 2 Diabetes treated with oral hypoglycaemic agents
 - Primary Hypothyroidism treated with levothyroxine;
 - Hypertension treated with iberstatan + hydrochlorothiazide.
- Referred to **Endocrinology** due to:
 - pituitary incidentaloma (18mm of maximal diameter) diagnosed in a CT scan that was performed due to syncopal episodes;
 - visual acuity loss; occasional headaches;
- Physical Examination:
 - no cushingoid facies, easy bruising or purple striae;
 - no acromegaly stigmatae; no galactorrhoea.

Parameter	Result	Reference Value
IGF-1	48	72 – 167 ng/mL
TSH	0,61	0,35 – 4,94 µUI/mL
T4L	1,41	0,70 – 1,48 ng/dL
FSH	26,61	25,8 – 134,8 mUI/mL
LH	24,97	7,7 – 58,5 mUI/mL
Prolactin	22,9	4,8 – 23,3 ng/mL
Cortisol	22,6	6,2 – 19,4 µg/dL
ACTH	117,5	< 63,3 ng/L
UFC	65,6	36 – 137 µg/dia
Late-night salivary cortisol	0,297 0,389	<0,32 µg/dL
1mg overnight DEXA suppression test	6,2	<1,8 µg/dL
2mg/48h DEXA suppression test	29,2	<1,8 µg/dL

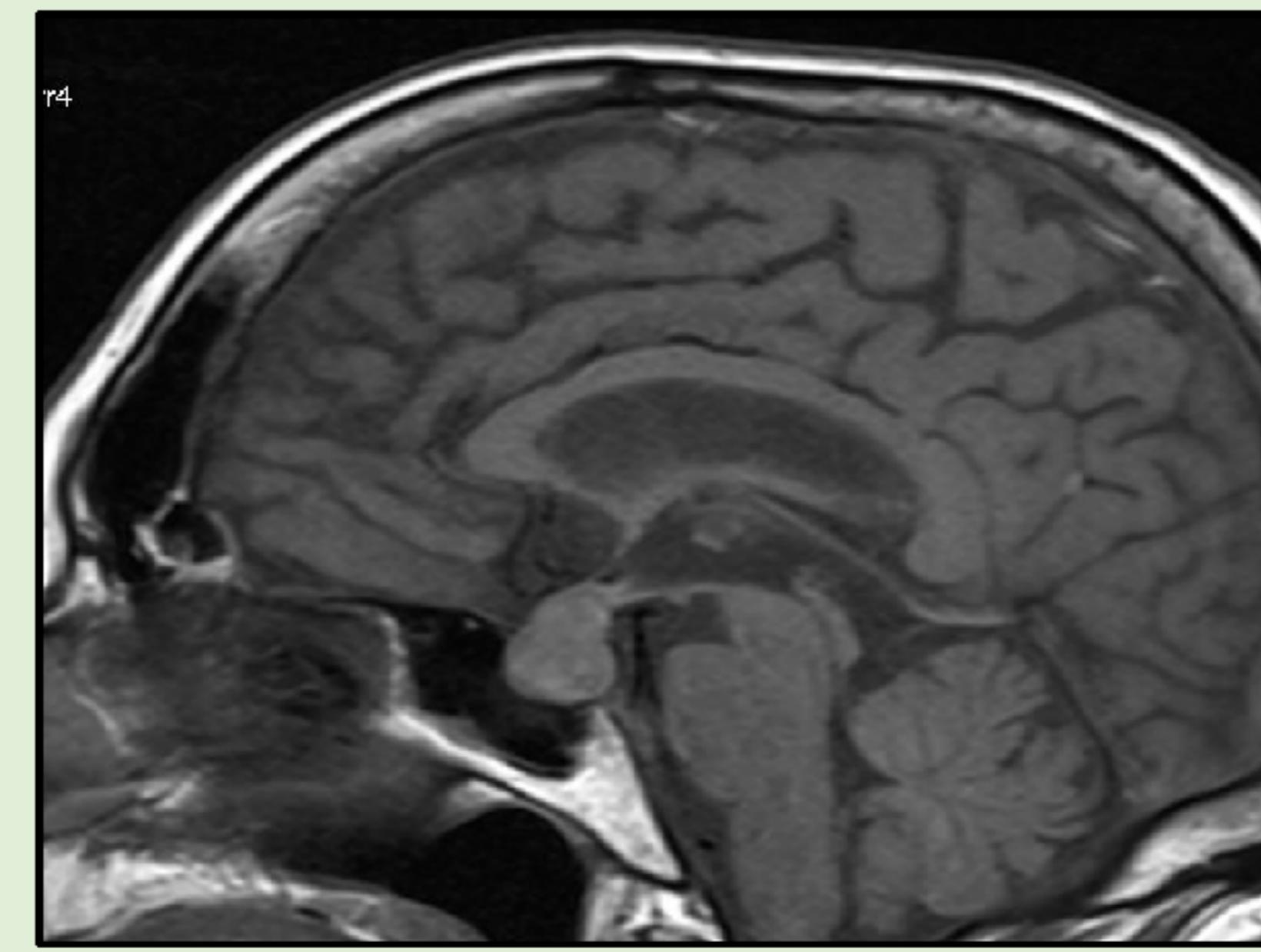
Cushing Syndrome

September/2015

- Emergency Department:
 - headaches, nausea and vomits;
 - psychomotor impairment;
- Hyponatremia (114mEq/L);
- Head CT: no significant alterations;

Hydrocortisone ↓ 100mg

- **Hydrocortisone** 20mg/day
 - plasmatic sodium normalization (114 > 139mEq/L);
 - symptomatic improvement;
- **T1 weighted Pituitary MRI**: “Probable pituitary macroadenoma with hemorrhagic foci inside”



Admitted to the Endocrinology ward – Pituitary Apoplexy?

Parameter	Result	Reference Value
IGF-1	19	72 – 167 ng/mL
TSH	0,04	0,35 – 4,94 µUI/mL
T4L	0,96	0,70 – 1,48 ng/dL
FSH	2,14	25,8 – 134,8 mUI/mL
LH	0,23	7,7 – 58,5 mUI/mL
Prolactin	4,8	4,8 – 23,3 ng/mL
Cortisol	1,2	6,2 – 19,4 µg/dL
ACTH	41,3	< 63,3 ng/L

Panhypopituitarism

Pituitary Apoplexy

CONCLUSIONS

Pituitary apoplexy is rare but it can be a serious health issue if not promptly recognized. In this particular case, the apoplexy led to hypercortisolism resolution. Thus, if the revaluation MRI shows significant tumoral shrinking, the patient will no longer have surgical indication.

References: [1] Freda PU, Beckers AM, Katzenelson L, Molitch ME, Montori VM, Post KD, et al. Pituitary incidentaloma: an endocrine society clinical practice guideline. The Journal of clinical endocrinology and metabolism. 2011;96(4):894-904. [2] Briet C, Salenave S, Bonneville JF, Laws ER, Chanson P. Pituitary Apoplexy. Endocrine reviews. 2015;36(6):622-45. [3] Sahin SB, Cetinkalp S, Erdogan M, Cavdar U, Duygulu G, Saygili F, et al. Pituitary apoplexy in an adrenocorticotropin-producing pituitary macroadenoma. Endocrine. 2010;38(2):143-6.

