Pituitary apoplexy induced remission in a macroadenoma Cushing Disease

Pedro Soutêro1, Sandra Belo1,2,3, Maria Manuel Costa1,2,3, Rita Bettencourt-Silva1,2,3, Daniela Magalhães1,2,3, Joana Queirós1, Paula Freitas1,2,3, Lígia Castro1, José Pereira1, Davide Carvalho1,2,3

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 macroadenomas 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: Types 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 striæ;
  - no acromegaly stigmata; no galactorrhoea.

September/2015

- Emergency Department:
  - headaches, nausea and vomits;
  - psychomotor impairment;
- Hydrocortisone 100mg
- Hyponatremia (114mEq/L);
- Head CT: no significant alterations;

Admitted to the Endocrinology ward – Pituitary Apoplexy?

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

Cushing Syndrome

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

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: