An audit of transsphenoidal surgery on nonfunctioning pituitary adenomas

Authors: Moure L, Larrañaga I, Valle S, González B, González P, Gaztambide S
Cruc University Hospital

OBJECTIVE
Clinically nonfunctional pituitary adenomas are relatively an uncommon disease. The aim of this work is to describe the clinical characteristics and to review the results of transsphenoidal surgery (TS) of pituitary adenomas in a reference center.

METHODS
A retrospective study (1995-2014) of 66 patients (50% men) diagnosed with pituitary adenomas by a magnetic resonance imaging (MRI) was conducted. Demographic, clinical, biochemical data and the results of TS were collected. For statistical processing program SPSS version 22.0 was used.

RESULTS

Basal clinical characteristics (n = 66)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>57 ± 16.8</td>
</tr>
<tr>
<td>Clinical presentations (%)</td>
<td>Visual symptoms (36.4)</td>
</tr>
<tr>
<td>Incidental pituitary mass (34.8)</td>
<td></td>
</tr>
<tr>
<td>Tumor mean size (mm)</td>
<td>26.6 ± 8.8 mm</td>
</tr>
<tr>
<td>Pathological visual field testing at diagnosis</td>
<td>59 34.8% bitemporal hemianopsia</td>
</tr>
</tbody>
</table>

Transsphenoidal approach was used in all patients
(endoscope visualization in 13/52)

12 months after the surgery

50 % had no tumor image on MRI

9/52 required second surgery
11/52 required radiotherapy due to residual mass

CONCLUSIONS
Considering tumor size results they are similar to those reported in the literature but with a higher risk of hypopituitarism.