Novel Uses of Psychiatric Drugs to Treat Hypothalamic Obesity


Introduction and Objectives

• Hypothalamic Obesity (HO): secondary to hypothalamic damage. Multifactorial etiology: tumors, syndromes, infections...

• Main Clinical Features:
  - Hyperphagia and loss of satiety feeling.
  - No response to dietetic measures, medical therapy or even surgery.
  - Treatment: personalised due to its wide etiology. Hypothalamic damage makes difficult the response to conventional medical therapies.

• Objectives:
  - To describe the natural history of the disease in patients who attended to our centre from childhood to adolescence.
  - To find new uses of psychiatric drugs that might shed new light in the treatment of HO.

Methods

• Medical records review: 10 patients diagnosed with HO and treated by a multidisciplinary team at the paediatric Endocrinology Unit, from January 1990 to December 2015.

• Data collected: anthropometry weight (kg), height (cm) and BMI (Kg/m²), clinical data and treatment received to manage weight gain.

• Anthropometric reference data: Carrascosa et al, 2008.

• Some drugs required compasive use, and were approved by the Hospital Ethics Committee and Ministry of Health.

Results

<table>
<thead>
<tr>
<th>Age/sex at diagnosis</th>
<th>Weight-SDS at diagnosis</th>
<th>Weight-SDS after treatment</th>
<th>BMI-SDS before HO therapy</th>
<th>BMI-SDS after HO therapy</th>
<th>BMI gain</th>
<th>BMI decrease</th>
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<tbody>
<tr>
<td>12.5 / M</td>
<td>-0.2</td>
<td>+0.1</td>
<td>+1.1</td>
<td>+1.8</td>
<td>12</td>
<td>No</td>
</tr>
<tr>
<td>12.5 / M</td>
<td>+3.1</td>
<td>+3</td>
<td>+4.19</td>
<td>+5</td>
<td>48</td>
<td>2</td>
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<tr>
<td>1.5 / F</td>
<td>+3.5</td>
<td>+8.7</td>
<td>+5.7</td>
<td>+9.7</td>
<td>12</td>
<td>6.5</td>
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<td>+7.1</td>
<td>+6.4</td>
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<td>11</td>
<td>2.8</td>
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<tr>
<td>6.4 / M, 3F</td>
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<td>+4</td>
<td>+6.4</td>
<td>+2.9</td>
<td>2.5</td>
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</tr>
</tbody>
</table>

Hormonal therapy

- Hydrocortisone
- L-thyroxine
- GH Desmopressin

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Other therapies

- Dextroamphetamines
- Methylphenidate
- Topiramate
- Antibiotics

- Methylphenidate
- Dextroamphetamines
- RT, QT
- Surgery

- Melatonin
- Sertraline
- Bariatric Surgery

Conclusions

• Patients with HO gain weight rapidly one year after diagnosis or tumor therapy.
• HO should be assessed and treated early at the diagnosis.
• Some psychiatric drugs such as mehtylphenidate and dextroamphetamine might be useful and improve quality of life.

Bibliography