Gender aspects in the biochemical control of acromegaly: evaluation of 607 cases from the Austrian Acromegaly Register

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Aims and Methodology

The Austrian Acromegaly Register is an initiative of the Austrian Society for Endocrinology and Metabolism, formally established in 2005. Data are collected by two trained nurses, who visit all centers and continuously entered in a database managed by Lohmann & Birkner, Berlin, Germany.

We analyzed the data collected within the Austrian Acromegaly Register till the end of 2013. Here we report gender-specific differences in the presentation, therapy and biochemical control of acromegaly in patients included in this registry.

Data on biochemical control were collected in 476 patients with acromegaly and disease duration longer than 9 months, who were last visited between 2003 and 2014. Disease control was evaluated by GH less than 1.0 ng/ml during an oral glucose suppression test and/or normal age- and gender-specific IGF-1. Outcome data were available for 418 patients.

Study Population

At the time of data lock, 607 patients had been enrolled, 329 females and 278 males. Patients were followed for 10.7 ± 9 years (range 0-50), with a total of 6470 PatientYears.

Tumor Size

Younger age and male gender at diagnosis of acromegaly are associated with larger tumour size (P=0.001).

Higher prevalence of comorbidities in women

<table>
<thead>
<tr>
<th>Diabetes</th>
<th>Hypertension</th>
<th>Diabetes + Hypertension</th>
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</thead>
<tbody>
<tr>
<td>Female (%)</td>
<td>29</td>
<td>50</td>
</tr>
<tr>
<td>Male (%)</td>
<td>24</td>
<td>45</td>
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</tbody>
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Acknowledgements

We thank all participating centers and patients.

RESULTS

Therapy

89% surgery (73% one operation, 10% two operations, 6% had 3-5 operations)
11.4% first line medical therapy
44% on medical therapy at the last visit
22.4% radiotherapy, 1.8% only radiotherapy

Gender differences in biochemical control

Biochemically controlled patients: 71% (77% of females, 64% of males)
Higher cure rate in females

Mortality rates

Mortality rates were 2.9% in males and 3.3% in females, but mean age at death was 63 years for men and 73 years for women.

*Centers and Patients

Medical University of Vienna (230 pt), Medical University of Graz (113 pt), Medical University of Innsbruck (69 pt), SALK – St. Johannis Hospital Salzburg (58 pt), General Hospital of Linz (57 pt), Rudolfsstiftung Hospital (21 pt), Klagenfurt Teaching Hospital (19 pt), Hanusch Hospital Vienna (12 pt), Donau Hospital Vienna (10 pt), Feldkirch Teaching Hospital (8 pt), Hohenems Teaching Hospital (6 pt).