**Outcomes of first transsphenoidal surgery (TSS) for acromegaly**

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### Background
- Acromegaly is a disabling disease associated with increased morbidity and mortality due to excess deaths from cardio-respiratory and malignant diseases.
- Prevalence of acromegaly is estimated at 40-60 per million.
- Incidence is 3.4 per million per year.

### Aim of study
- To assess the biochemical cure rate of acromegalic patients treated with first TSS.
- To prepare and post-operative pituitary hormone deficiencies.
- Compare results with other centres.

### Methods
- Regular collection and reporting of surgical outcome data is essential to inform pituitary service provision.

### Results
- 22 first TSS operations over the 5 year period.
- 2 surgeons.
- 2.2 acromegaly operations/year/surgeon.
- 8 microadenomas.
- 6 intrasellar (IS) macroadenomas.
- 9 extrasellar (ES) macroadenomas.

### Patient Characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Micro</th>
<th>IS Macro</th>
<th>ES Macro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

### Pre & Post Op GH levels mcg/L

**Pre Op**
- Mean: 101.4
- Median: 53.5
- Range: 10-100

**Post Op**
- Mean: 140
- Median: 100
- Range: 20-140

- GH radir <1mcg/L post-GTT, or <2mcg/L (random GH or series mean).

### Remission Rates Achieved

#### GH Deficiency

**Pre Op**
- 0 (0)

**Post Op**
- 0 (0)

**Remission defined as normalisation of IGF1 for age and sex matched reference range.**

#### IGF1 Deficiency

**Pre Op**
- 22 (25)
- 22 (25)

**Post Op**
- 0 (0)
- 0 (0)

**Remission rates have globally improved since 2000.**

### References
- Dussek J, Endo, 2011 Dec
- Campbell PG, Neurosurg, Focus, 2010 Oct
- Kim MS, J Korean Neurosurg Soc, 2009
- Bates PR, Clin Endocrinol (Oxf). 2008 Jan

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### Conclusion

How many pituitary centres the UK should have for optimal outcomes, and whether centres should have one or two pituitary surgeons, remains an active debate. Regular collection and reporting of surgical outcome data is essential to inform pituitary service provision.