**OBJECTIVES**

Identify the prevalence of each indication.
Evaluate the annual response to treatment based on:
- Growth Velocity.
- Bone Age (BA).
- Bone Age / Height Age (BA/HA).
- Bone Age / Chronological Age (BA/CA).

**METHODS**

Retrospective study.
Age at starting GH between 3y 6m and 12y 1m.
Patients presented at Hotel-Dieu de France hospital for short stature (<-2SD).
Information is collected on diagnosis with evaluations (q3-6months) during treatment:
weight, height, value of IGF1, BA.
We used Sempé & Pedron growth charts.

**Limitations:**
- Size of our population.
- Recruitment limited to one department.

**INVESTIGATIONS AND TREATMENT PROTOCOLE**

All children had a routine blood test (with Ab TG), and:
- OGD Endoscopy with biopsy (Weight<-2SD, 17children, no celiac disease).
- Caryotype when Turner is suspected.
- 2 GH stimulation tests (Insulin and/or Glucagon).

**Criteria for GH diagnosis:**
- CGHD if GH ≤5ng/ml.
- PGHD if GH between 5 and 10ng/ml

**RESULTS**

**INDICATIONS FOR GH TREATMENT**

- CGHD: 22%
- PGHD: 8%
- IUGR: 36%
- TURNER: 6%
- ISS: 28%

<table>
<thead>
<tr>
<th>DOSE OF GH USED</th>
<th>GHD</th>
<th>Turner</th>
<th>IUGR</th>
<th>ISS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20-35µg/kg/d</td>
<td>50-60µg/kg/d</td>
<td>50-70µg/kg/d</td>
<td>30-40µg/kg/d</td>
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</tbody>
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**Mean BA/HA**

- CGHD: 1.01
- PGHD: 1.06
- IUGR: 0.92
- Turner: 1.19
- ISS: 1.0

**Mean BA/CA**

- CGHD: 0.66
- PGHD: 0.73
- IUGR: 0.65
- Turner: 0.84
- ISS: 0.75

**INTERESTING OBSERVATIONS**

- 13 CASES OF GH DEFICIENCY IN THE IUGR SUBGROUP
- CASE OF TWIN SISTERS WITH PGHD
- FREQUENT FAMILY HISTORY OF SHORT STATURE
- 4 CHILDREN HAVE A VACTERL SYNDROME

**CONCLUSIONS**

Our results are comparable to international studies in terms of diagnosis and results to treatment.
The catch-up growth and growth velocity are satisfactory in the different sub-groups (especially IUGR, early detection by pediatricians).
IUGR and CGHD have the lowest values of BA/CA and BA/HA, and the best responses to GH.
We had no complications related to treatment in our population.

**Importance of:** Early diagnosis and treatment and Compliance.