The primary goal of GH treatment in GHD children and adolescents is to normalize height, in order to attain an adult height within the target height (TH) range.

To investigate height improvement in GHD paediatric patients treated with GH in our Country.

737 patients with isolated GHD (39.5% females)
13 tertiary Centres for Paediatric Endocrine Care
Near adult height (NAH): growth velocity (GV) < 2 cm/year

GHD defined as
1. serum GH below 10 ng/ml after two standard stimulation tests (20 ng/ml if GHRG + arginine test)
   AND
2. a) height < -3 SDS OR
   b) height < -2 SDS and GV < -1 SDS OR
   c) height < -1.5 SDS than TH and GV < -2 SDS

Any condition which could affect linear growth

RESULTS 1

<table>
<thead>
<tr>
<th>AGE (years)</th>
<th>p &lt; 0.001</th>
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<tbody>
<tr>
<td>MALES</td>
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<td>FEMALES</td>
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| SDS         | VS TH     | p < 0.001 |
|-------------|-----------|
| TH          | H at baseline | H at stop therapy |
| Mean GH Dose (mg/kg/week) | 0.25 | p < 0.001 |

RESULTS 2

NAH: significantly and positively correlated with TH, baseline height and height at puberty onset (p<0.001 for each), but not with baseline age and GH dose

Regression analysis: baseline height and TH were the most important factors affecting NAH

DISCUSSION

- Italian patients seem to be older than data from literature, but NAH is within the genetic growth potential
- Most of them could have a transient prepubertal GHD (priming with sexual steroids was never performed)
- The baseline GH dose seems similar to what reported in literature and decreased during the follow-up
- Patients recruitment and data collection about GH retesting, IGF1, and MRI findings are still ongoing.