



# CHILDREN BORN SMALL FOR GESTATIONAL AGE TREATED WITH GROWTH HORMONE: EVOLUTIONARY ASPECTS

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## Introduction

- **Short for gestational age children (SGA):** represent 20% of all children with short stature (stature less than -2 standars deviations). **10% of these can not catch-up.**
- **Growth hormone treatment (GH)** is a recognized therapy for SGA children (authorized in Europe at 4 years old).
- **There are studies that support that younger children are more responsive to therapy.**

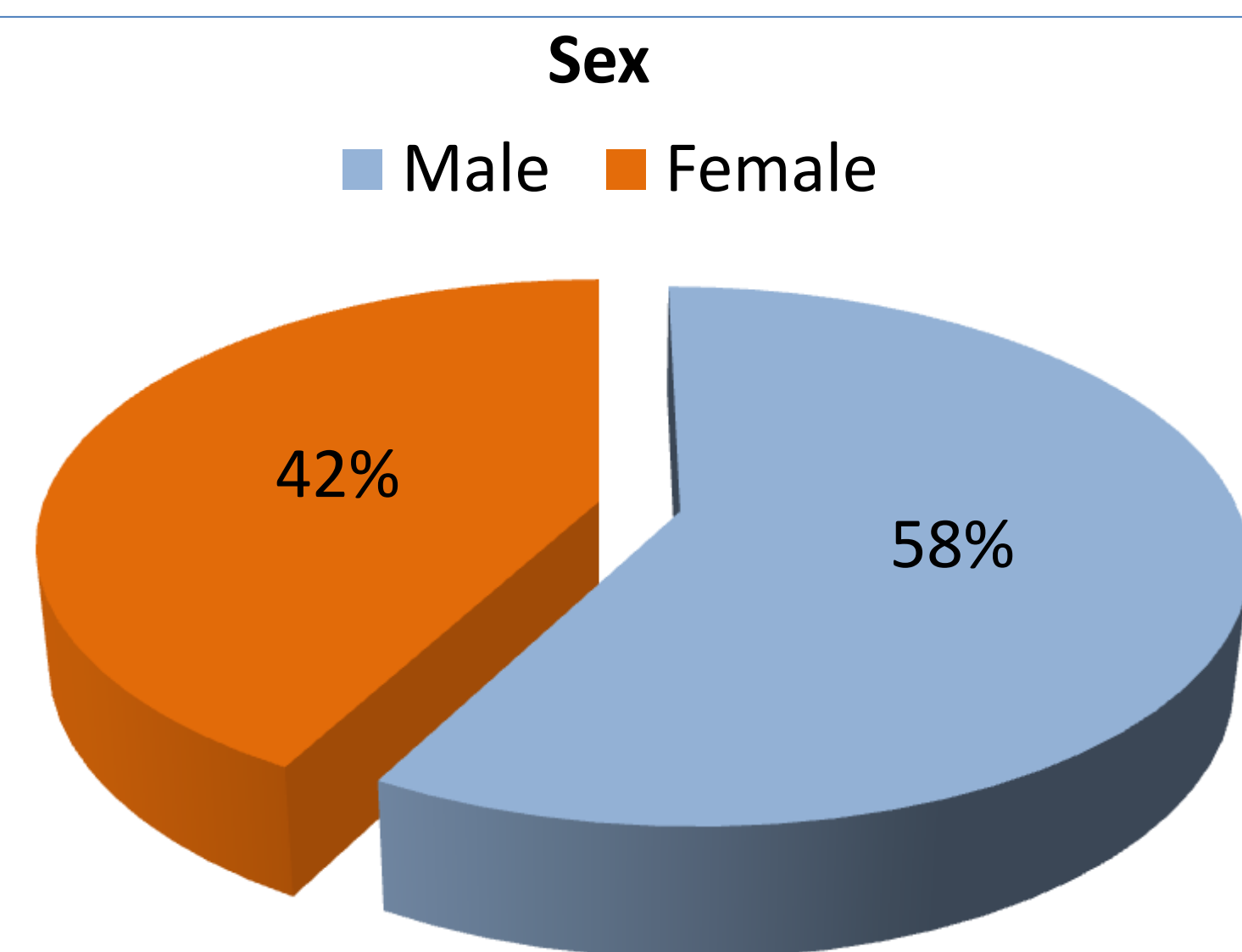
## Methods

Retrospective descriptive study of SGA children treated with GH from 2010 to 2017.

We aimed to assess the anthropometric data at the beginning and after one year of treatment.

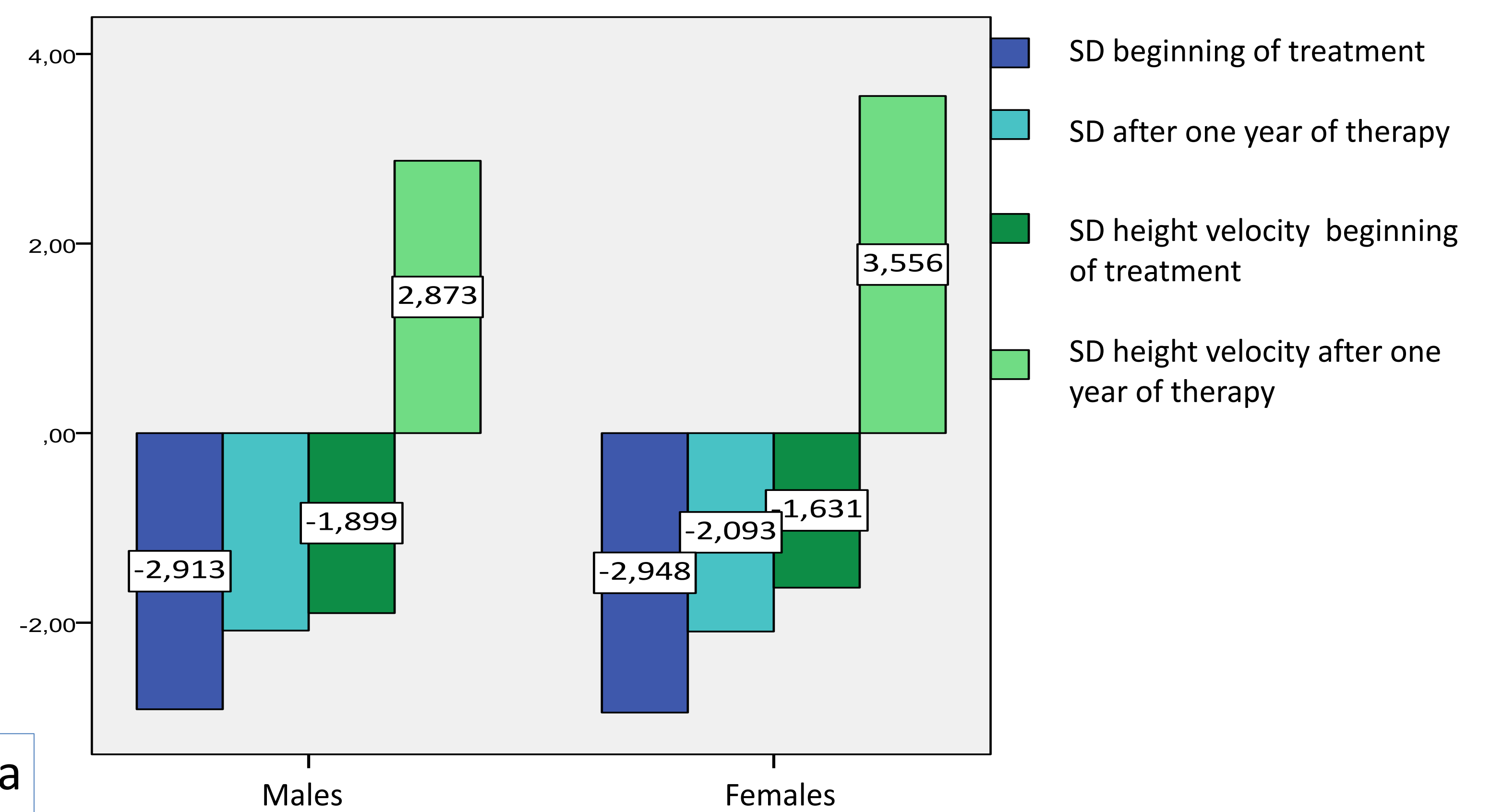
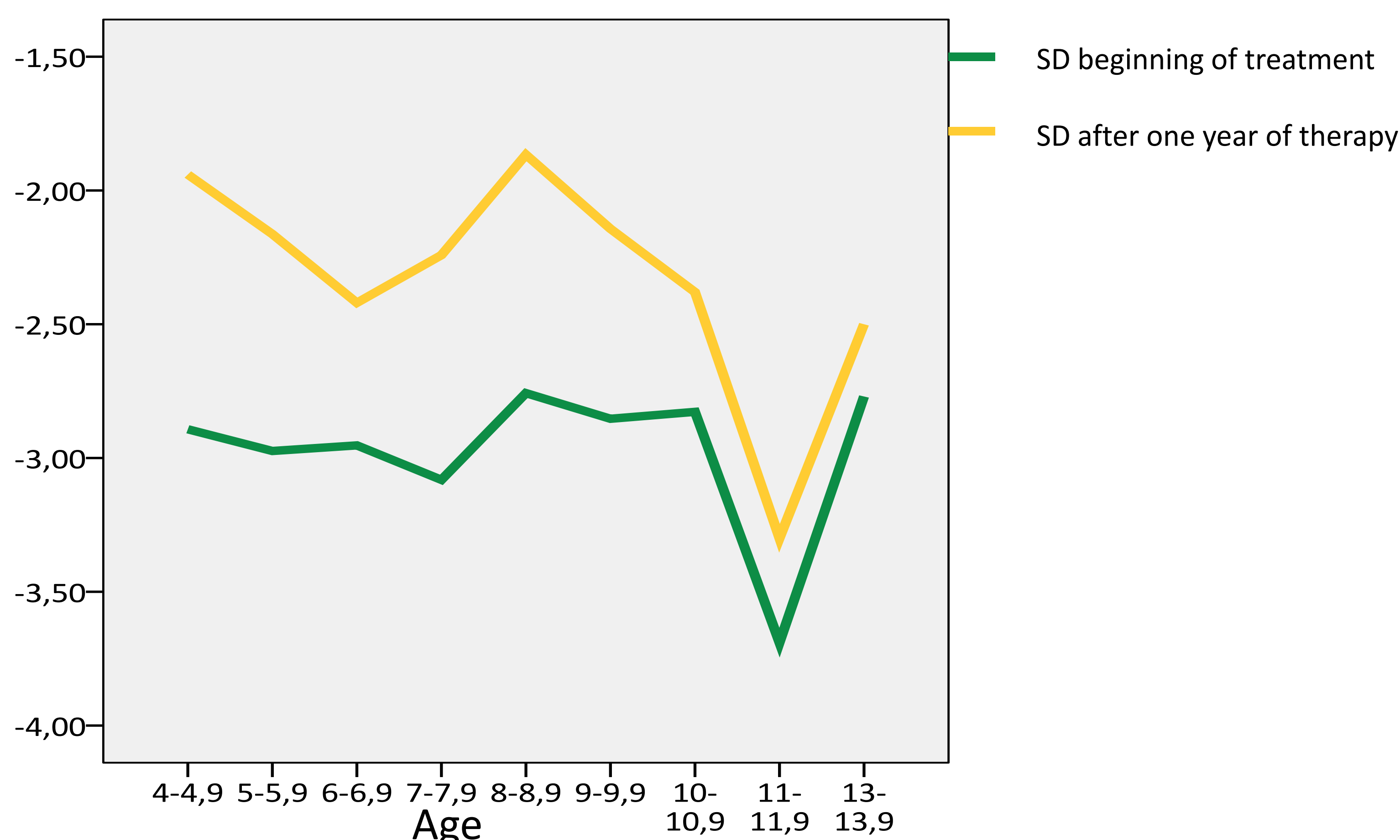
## Results

The review includes 81 patients . 12.3% were multiple-gestations and 33.3% premature

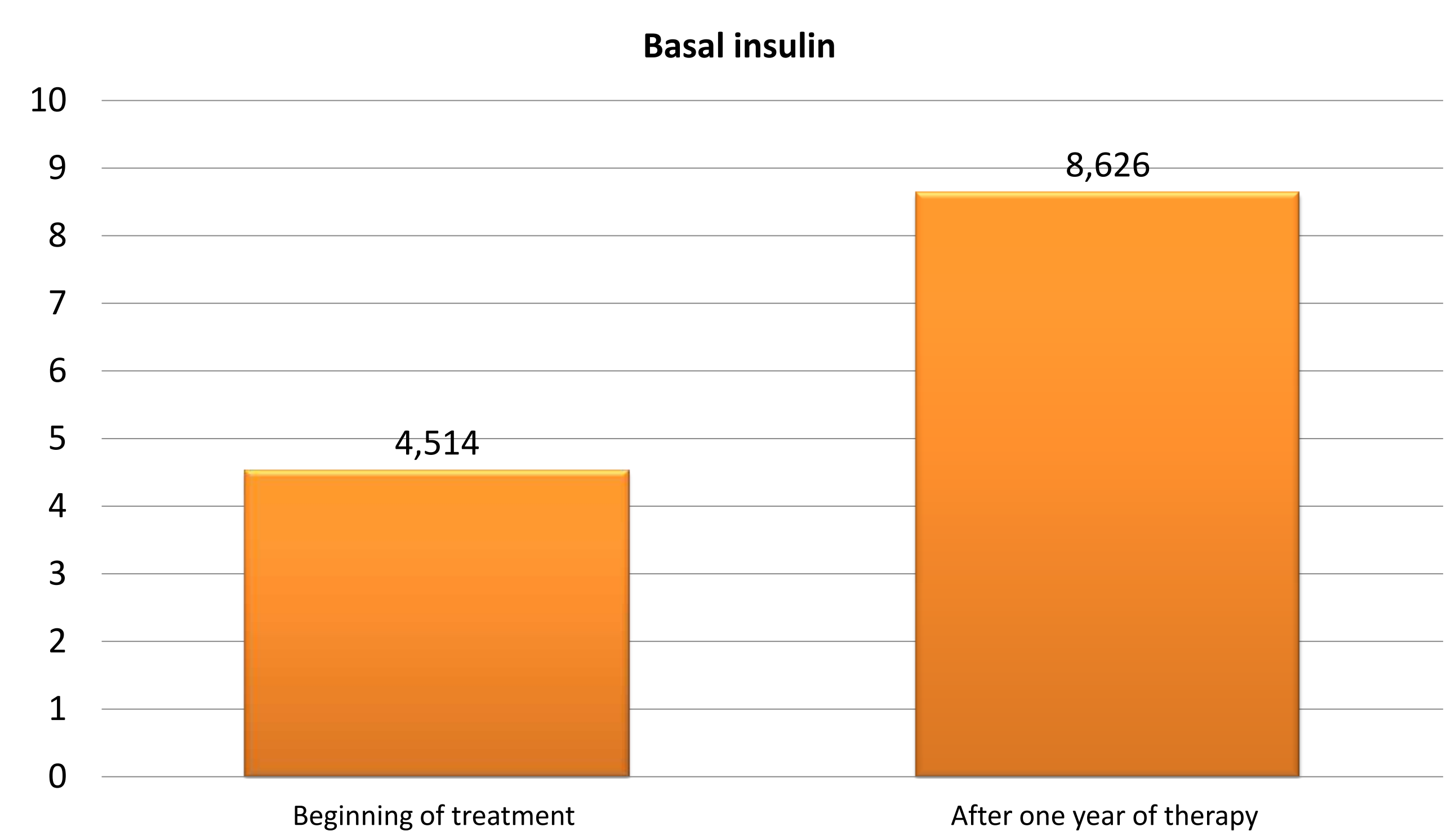


92.5% of the children had a birth length less than - 2 SD and 58% a weight less than - 2 SD. In 49.8% both measures were below -2 SD.

The mean age at the beginning of treatment was 6.08 years.



- The average GH dose initially was 0.038 mg/kg/day. We couldn't prove relationship between GH dose and higher height velocity.
- We couldn't prove relationship between increased delayed bone age and a greater response to treatment.



## Conclusions

1. **GH therapy is effective in SGA** children with an increase of almost 1 SD after one year of treatment, increase in height velocity and adult height prediction.
2. **Increases basal insulin levels** but does not alter the other analytical parameters.
3. A **greater treatment response** is observed in younger children.
4. The greater delay in bone age is not related to a greater treatment response.

