QUALITY OF LIFE IN CHILDREN TREATED FOR IDIOPATHIC SHORT STATURE: A TWO YEAR CONTROLLED RANDOMIZED FOLLOW- UP STUDY.

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Introduction. Changes in Health Related Quality of Life (HRQoL) and self-esteem were studied in children with idiopathic short stature (ISS) participating in a prospective randomized controlled study on the effect of Growth Hormone (GH) treatment.

Sample and methods. The sample consisted of 33 prepubertal children (age 4 to 10 years old at start) with ISS (height < -2 SD). The children were randomly assigned to a treatment or control group. The children of the GH treatment group underwent an extensive biochemical assessment to verify their GH responsiveness during the first year. Thereafter, high dose GH therapy (6 IU/m^2.d) (Pharmacia & Upjohn, Stockholm, Sweden) was started and given for at least two years.

HRQoL and self-esteem were assessed three times: shortly after randomization (T1), after one (T2) and two years (T3). Children with ISS, their parents and the paediatrician completed questionnaires (e.g. TACQOL, DUCATQOL, Self-Perception Profile). These results were compared to those of a large and representative population sample.

Results. At T1, children with ISS did not have a lower HRQoL and self-esteem than the norm population, except for social functioning as reported by child and parents. **Children, parents and paediatrician assessed HRQoL changes differently:** although the paediatrician reported an improvement of HRQoL in the children treated for short stature, the parents reported no change, and the children in the treatment group reported the same or sometimes even worse HRQoL or self-esteem than the control group.

Height SDS improved significantly in the treatment group only (Fig. 1). The appreciation of height -- "about how tall I am I feel…" -- was not significantly different between groups (Fig. 2).

According to linear regression analyses, changes in HRQoL and self esteem between T2 and T3 hardly related to growth (objectively measured or as perceived by the child). Instead, changes in several HRQoL and self-esteem scales related to the height appreciation by the child her/himself.

Figure 1. Height SDS over time, tested by mixed model ANOVA for repeated measurements

Figure 2. Height appreciation over time, tested by mixed model ANOVA for repeated measurements

Conclusions. The assumption that GH treatment improves HRQoL in children with ISS could not be supported in this study. (Reference. Theunissen, N.C.M. Health related quality of life in children, Leiden: Thesis LUMC, 1999)
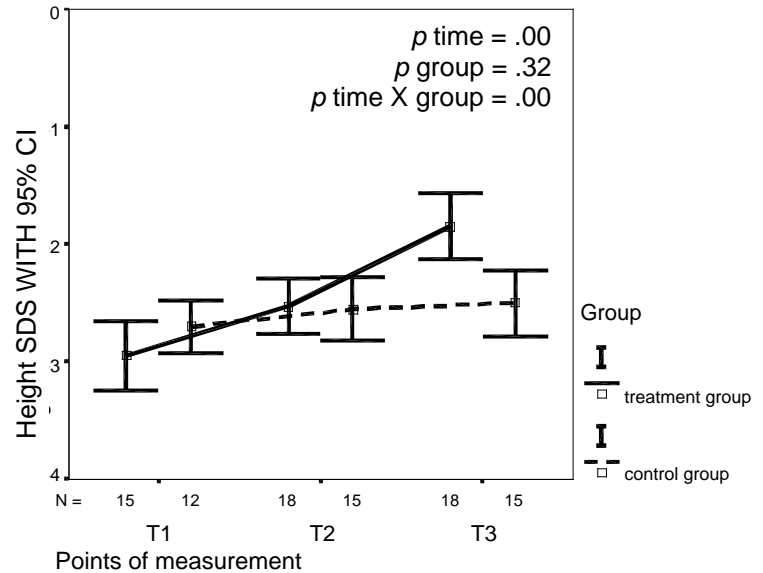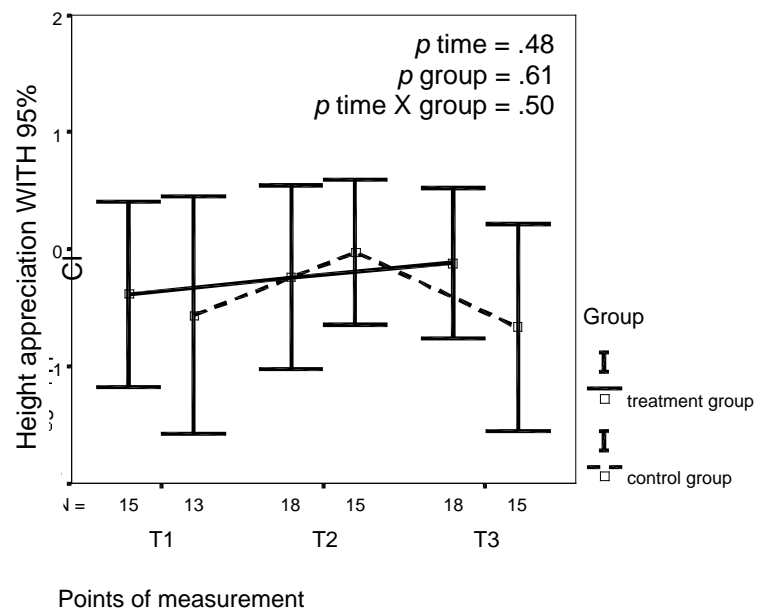
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