



RESULTS

Age- and sex-specific height velocity percentiles were generated. The data was available in 1,627 boys and 1,700 girls. The mean peak height velocity was 7.18 ± 2.56 cm in boys observed at 12-12.9 years and 5.8 ± 2.56 cm in girls at 10-10.9 years.

CONCLUSION

Normative height velocity data for South Indian children has been presented. This is the first large scale study from South India evaluating height velocity data for children aged 3 to 18 years. The database for the study was derived from a heterogeneous population, by including children from rural and urban areas, thereby representative of data from diverse socioeconomic backgrounds. These charts can, therefore, be applied to the economically deprived and privileged alike, because a significant proportion of children catered to by paediatricians/endocrinologists in public hospitals belong to the former group.

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ACHIEVING EQUILIBRIUM – GROWTH HORMONE (GH) DYSFUNCTION, THERAPY AND OBJECTIVE MEASUREMENT OF OUTCOME

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INTRODUCTION

Growth hormone (GH) derangement can impair physiological function and patient's quality of life (QoL). Until recently adult GH deficient (AGHD) patients have been undertreated in Australia due to prescribing cost limitations. Due to the relative rarity, adult acromegalic (AA) patient data has not been well documented across these domains.

This study aims to contribute to the clinical understanding of GH deficient and excess states once GH levels are normalised with therapy.

METHODOLOGY

This is a single-centre, mixed methods study and chart review (2012 to April 2022) of 28 AGHD and 15 AA patients enrolled from Macquarie University Pituitary Clinic. Diagnosis, work-up and management of the cause of AGHD or AA was as per the Society guidelines.

Clinical and psychosocial measures were taken at baseline and at each follow-up consultation. The primary outcome measure was insulin-like growth factor-1 (IGF-1). Secondary outcome measures included fasting blood glucose (FBG), glycated haemoglobin, lipid profiling, weight, body composition by SOZO bioimpedance (Impedimed) and QoL.

RESULTS

AGHD patients achieved normalisation of IGF-1 on therapy to the mid-upper range of normal. In AA patients, 85% achieved normalisation of IGF-1 on therapy. AGHD demonstrate improved metabolic profiles (lipid and glycaemic control), body composition, bone mineral density (BMD) and QoL with normalisation of GH levels, in keeping with the evidence base for pharmacotherapy. At the other end of the spectrum, AA patients, coming from excess status to normalisation of GH levels, had improved metabolic parameters, body composition and QoL. Untreated patients did not have any improvement across different parameters.

CONCLUSION

GH dysfunction has significant impact on patient well-being across multiple domains. Therapy reverses the deleterious clinical and psychosocial effects of GH dysfunction and successfully restores physiological equilibrium of the GH axis. Large long-term cohort follow up is needed to add to the literature.