

# Final height of children with SGA TREATED WITH BIOSYNTHETIC GROWTH HORMONE : About a serie of 30 children

## INTRODUCTION

Small gestational age (SGA) is defined by a small size and / or a birth weight less than -2DS / standards for the term of pregnancy. Most of these children catch up to their size in the first two years of life. Only 10% of them will stay with a size of less than - 2 DS . These children may benefit from treatment with growth hormone (GHR), which improves their stature prognosis OBJECTIVE: Study the final height of children with IUGR have reached adulthood and treated by GHR

## METHOD

30 children with average age of 8.5 years for females and 9.5 for males at diagnosis were treated with GHR (average dose of 0.045 mg / kg per day ) to achieve the adulthood. These children were compared to a similar group of 36 children with the same disease and untreated

## RESULTS

The mean size at diagnosis was -3.5 DS / TC and -4.5 DS / M (Sempé). After treatment for 4 years (on average) adult height was -2 DS / TC and -3 DS / M in children against -2.9 DS in the non-treated group, the difference was significant ( $p = 0.005$ ).

The height gain in adulthood with the rGH was 1.5 against 0.6 DS in the non-treated group ( $p = 0.002$ )

The age at puberty similar in both groups was not advanced



BO

HA



## DISCUSSION

Since the 70's with all treatment with rGH, it was demonstrated that growth hormone acceleration the velocity of growth and significant statural catch up . the catch-up effect is even more marked, .that treatment is started early.

However, we must

not investigate a child before his 2<sup>nd</sup> birthday, being a catch yet possible: The knowledge of this pathology and anthropometric monitoring of all children from birth is essential . Multicentre studies analyzing the treatment . by growth hormone over a period of 6 years,

Demonstrated clearly a dose effect dependant . Most patients require treatment In a long-term after normalization the size or after reaching the channel growth corresponding to their genetic potential . Children have a delayed bone age of 1-2 years; for

These children, unlike other children with growth retardation, it not necessarily mean that growth will last longer but contribute to not advance puberty

HA 24 has a GH deficiency responsible of

dwarfism: size corresponding to that of BO (4 years old)

GH deficit responsible dwarfism and severe abdominal obesity

## CONCLUSION

Despite a delay in diagnosis and treatment initiation by GHR , results on final height are satisfactory.

The effectiveness of the GHR in children with SGA is well established. Early introduction of treatment to efficace dose allows normalization of the size of children to adulthood.

Puberty is not affected by the GHR