



POSTER PRESENTATION

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Association between exon-3 polymorphism of the GH Receptor(GHR) gene with catch growth in children born small for gestational age

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Objective

The aim of this study was to investigate relationship between GHR exon 3 genotype and catch up growth in children fullterm born small for gestational age.

Methods

Children were classified as SGA if birth weight was less than -2SDS. Catch up defined as height of less than -2SDS at the time the child was examined. DNA for the GHR exon 3 genotyping was isolated from peripheral blood lymphocytes and was analyzed by multiplex PCR.

Results

1) Total of 92 children, 74(80.4%) had sufficiently catch up. 2) 69(75%) were *fl/fl*, 15(16.3%) were *fl/d3* and 8 (8.6%) were *d3/d3* the SGA groups, compared with 81%, 18%, and 1%, respectively in the Korean controls ($P=0.04$). 3) The highest catch up rate was seen in the *fl/d3* subgroup(86.6%), the lowest in the *d3/d3* subgroup (62.5%). The differences were not significant. 3)*d3/d3* GHR genotype in the SGA groups is higher than in the Korean controls. 4) *Fl/fl* GHR genotype is higher than other published data in SGA groups.

Conclusion

Differences in the frequency distribution of the GHR polymorphism genotype between normal Korean population and SGA groups were not significant. GHR-exon 3 polymorphism did not influence the postnatal growth in Korean children with SGA. Additional studies are

required to establish effect of the d3-GHR allele on prenatal growth in SGA.

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