1237 Environmental and genetic factors in etiology of orofacial clefts in Argentina. M.M. Tolosa1, A.G. Goldberg2, A. Capozzi2, M. Pasto1, R. Guillen1, and R.P. Steegers-Theunissen3,
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Orofacial clefts (OCF) are common birth defects affecting about 1-2 in every 1,000 newborns worldwide. Genetic and environmental factors play a role in their etiology. Historical and recent studies suggest that a certain proportion of OCF could be explained by genetic factors. The etiology of OCF is complex and multifactorial. We have performed a population-based study to analyze dietary information, karyotype status and other epidemiological information, we carried out a case control study in Mendoza, Argentina. Altogether, 140 probands and 110 control families were analyzed. During a personal interview, mothers and fathers were asked about their parental ancestry, religious beliefs, and other relevant factors. Statistical analysis was performed by Chi-squared test. Our results showed no significant differences between cases and controls in karyotype status and dietary habits. The genetic background of OCF is complex, and further studies are needed to understand the role of genetic and environmental factors in its etiology.

1238 Associations between luteinizing hormone (LH) genotype polymorphism and skeletal maturity and height gain during and after puberty. B. Towle1, J.S. Pires2, J. Blanquer3, L. Almon4, M.J. Brown5, T.C. Murphy6, E.W. Demers7, A.P. Roche1, R.M. Klauber8, A. Capozzi2, M. Pasto1, R. Guillen1, and R.P. Steegers-Theunissen3,
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Luteinizing hormone (LH) is a major regulator of male and female sexual development and reproduction. Its secretion is regulated by the hypothalamic-releasing hormone GnRH and the pituitary gonadotropin-releasing hormone (GnRH) receptors. The LH gene is located on chromosome 17q21.3 and encodes a polypeptide hormone that triggers the release of other hormones. It is involved in the regulation of testosterone and estradiol levels, which are crucial for the development and function of the reproductive system. The LH gene contains several polymorphisms that may affect its expression and function. Associations between LH genotype polymorphisms and clinical outcomes have been reported, but the underlying mechanisms are not well understood. In this study, we examined the relationship between LH genotype polymorphisms and skeletal maturity and height gain during and after puberty. We genotyped 194 boys and 194 girls for two polymorphisms, 82T > 82C and 88C > 88T, using PCR-RFLP. We found significant differences in skeletal maturity and height gain between LH genotype polymorphism carriers and non-carriers. These findings suggest that LH genotype polymorphisms may play a role in the regulation of skeletal growth and development, and may provide insights into the mechanisms underlying sexual development and reproduction."