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# Analytic Summary

**Rebato, Esther; González Apraiz, Arantxa** (Univ. del País Vasco. Fac. de Ciencias. Dpto. de Biología Animal y Genética. Sección Antropología Física. Apdo. 644. 48080 Bilbao): Evaluación antropométrica del crecimiento somático en adolescentes del medio urbano (Anthropometric evaluation of somatic growth in adolescents from urban environments) (Orig. es)

In: *Zainak*. 16, 7-22

**Abstract:** This article analyses the ontogenic variability and the sexual dimorphism of a set of anthropometric variables (stature, weight, sitting height, ileospinal height and biacromial and bicrestal widths) taken in adolescents of both sexes residing in the city of Bilbao. The sample is formed by 1.260 students (605 boys and 655 girls), with no family relations among each other and aged between 14 and 19, that they have been the object of a transverse study. The analysis accomplished indicate: i) meaningful changes in the age of all the dimensions studied, ii) a greater variability in the length and in the weight that in transverse measurements, and iii) a notable sexual diformism, with a greater variability in the masculine sex, which present a higher average in the measurements taken for all ages.

**Key Words:** Auxology. Body dimensions. Urban environment.

**Rosique, Javier; Rebato, Esther** (Univ. del País Vasco. Fac. de Ciencias. Dpto. de Biología Animal y Genética. Sección Antropología Física. Apdo. 644. 48080 Bilbao): La semejanza familiar en la morfología corporal de la población de Vizcaya (Familiar resemblance in body morphology) (Orig. es)

In: *Zainak*. 16, 23-51

Abstract: This research covers a study about familiar resemblance among three sibling samples and one parent-child sample drawn from the Bizcayan population, taking into account a set of morphologic features which describe the body morphology. The method of analysis is based on the implementation of familiar correlations using maximum likelihood estimates (Rao et al., 1987). The coefficients of genetic determination obtained ranged from 62.3% to 53.2% according to each different variable. There is no evidence of sex-linkage in any of the biological features considered, although some of them seem to share a greater degree of autosomic genetic determination both in males (adiposity indexes) and females (endomorphism). Somatotypes show a moderate degree of heritability, similar to other Caucasoid populations. Moreover, as a consequence of the common way of life, siblings tend to resemble more to each other than in relation to their parents.

Key Words: Familiar resemblance. Body morphology. Basque anthropology.

**Rebato, Esther; Rosique, Javier** (Univ. del País Vasco. Fac. de Ciencias. Dpto. de Biología Animal y Genética. Sección Antropología Física. Apdo. 644. 48080 Bilbao): Indicadores antropológicos del estado de salud y bienestar de la población urbana de Vizcaya. (Anthropologic indicators of the state of health and welfare of the urban population in Biscay) (Orig. es)

In: *Zainak*. 16, 53-71

Abstract: The fatness and fat distribution in a sample of 3,803 Biscayan students of both sexes, whose ages ranged from 4,5 to 23,5 years, have been studied in regard to the socio-economic status of their families. In both sexes the lowest socio-economic level, SES2, had higher values of skinfold thicknesses than SES1 for all skinfolds, except for biceps in the female sample. In males, the effect of SES in subscapular and suprilliac skinfolds was smaller than in extremity skinfolds; however, the SES had a stronger effect in the abdominal site. In females, the SES effect was greater in subscapular and suprilliac skinfolds.

Key Words: Subcutaneous fat. Socioeconomic status. Health determinants.

**Rosique, Javier; Rebato, Esther; Salces, Itziar; San Martín, Leire; Vinagre, Arantza** (Univ. del País Vasco. Fac. de Ciencias. Dpto. de Biología Animal y Genética. Sección Antropología Física. Apdo. 644. 48080 Bilbao): Estudio antropológico sobre la distribución de la grasa subcutánea en niños y jóvenes obesos (Anthropologic study on the distribution of the subcutaneous fat in children and obese youths) (Orig. es)

In: *Zainak*. 16, 73-82

Abstract: From a cross-sectional sample of 3889 Biscayan students aged from 4 to 24 years, subcutaneous fat distribution patterns of both, normal and obese, were obtained. In spite that obesity has a rather low frequency (10.2% in boys and 9.4% in girls), its association with high levels of central fat, in both sexes, is much higher than founded in non obese at any age. Surveillance in the calculation of obesity frequency from infant and young Basque population and the study of its anthropological constraints are a valuable task for any health education program in the community.

Key Words: Fat patterns. Obesity. Basque population.

**Rosique, Javier; Rebato, Esther** (Univ. del País Vasco. Fac. de Ciencias. Dpto. de Biología Animal y Genética. Sección Antropología Física. Apdo. 644. 48080 Bilbao): Estima de la heterogeneidad interpoblacional mediante caracteres poligénicos: pigmentación de la piel (Estimation of the interpopulation heterogeneity through poligenic characters: skin pigmentation) (Orig. es)

In: *Zainak*. 16, 83-94

Abstract: Skin colour has been studied in a Biscayan sample of males and females, not related, between 8 and 19 years of age. Data, collected by reflectometry, have been used to quantify the degree of interpopulation heterogeneity for skin colour on the Biscayan Coast through the implementation of  $r_1$  and  $r_0$ . The spectral region that measures the melanine quantity better seems to afford the greater part of the heterogeneity found. Mean values of heterogeneity are bigger in females than in males. Sopelana, Múgica and Lequeitio samples appear to have received a greater amount of gen flow with respect to the expected values when reflectance data are used in the extended model of Harpending and Ward (1982) for quantitative traits.

Key Words: Skin pigmentation. Coast of Biscay.

**Rebato, Esther; Salces, Iciar; San Martín, Leire** (Univ. del País Vasco. Fac. de Ciencias. Dpto. de Biología Animal y Genética. Sección Antropología Física. Apdo. 644. 48080 Bilbao): Análisis de la variabilidad intrapoblacional de la pigmentación cutánea y estima de la semejanza familiar en población vizcaína en crecimiento (Analysis of the inter-population variability of cutaneous pigmentation and estimation of family similarities in the growing population in Bizkaia) (Orig. es)

In: *Zainak*. 16, 95-107

Abstract: Skin pigmentation has been analyzed by reflectometry in a biological sibling sample of the Biscay Province, whose ages ranged between 4+ - 20+ years, with the aim of estimating the degree of familial resemblance for this anthropobiological character. Ontogenetic and sexual variations has been observed in function of the used filter and the body site of measurement (arm or forehead). Skin colour has a moderate-high heritability, with correlations coefficients varying between 0.28 and 0.45. Likewise, the study has confirmed that the degree of familial similarity of this trait varies with age: in general, arm shows a higher genetic dependence, especially from puberty, whereas forehead is more influenced by environmental factors.

Key Words: Skin pigmentation. Heritability.