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A FOGÉLETKOR HETEROGENITÁSÁNAK BIOLÓGIAI KÖVETKEZMÉNYEI SZILÉZIAI GYERMEKEKNÉL

Írta: BERDYCHOWSKI, WŁODZIMIERZ és WOLAŃSKI, NAPOLEON

(Pedagógiai Főiskola Orvos-biológiai Osztálya, Częstochowa; Lengyel Tudományos Akadémia Humánökológiai Intézete, Warszawa)

Összefoglalás

A feldolgozás alapjául 291 városi és vidéki környezetből származó gyermek és azok szülei szolgáltak. A szerzők a címben felvetett kérdést főleg az endogén (mindkét szülő ugyanabból a helységből való) és az exogén (különböző helységekből származó szülők) családok gyermekei között a kibújt fogak számában mutatkozó különbségek szempontjából vizsgálták.

A kapott eredmények a következőképpen értelmezhetők: a homozygota gyermekekhez képest a heterozygota csoportok fiatalabb gyermekei, akik fogékonyabbak a környezeti hatásokra, lassú fejlődést mutatnak; ezzel szemben a heterozygota csoport idősebb gyermekeinek fejlődése a vizsgált környezetben gyorsabb. A heterozygota csoportoknál eddig lassú fejlődés volt észlelhető, az utóbbiak azonban a legszegényebb néprétegekből valók voltak. Mégis úgy tűnik, hogy ez a jelenség egyaránt függ a fejlődés időszakától és az életkörülményektől.

BIOLOGICAL CONSEQUENCES OF THE HETEROGENEITY OF THE TOOTH AGE OF SILESIAN CHILDREN

by W. Berdychowski and N. Wolański

(Preliminary communication)

In the District of Katowice stomatological examinations were performed for evaluating the rate of development of Silesian children and, in this way, their biological condition. In connection with these investigations, the differences in the rate of development of the teeth referred to the time of their eruption were analysed by counting the number of permanent teeth. As material served 291 children and their parents from city and country environments. The material was mainly examined as to differences in the number of erupted teeth between children of endogenous (both parents from same locality) and exogenous (parents from different localities) families. The children were, further, divided into two age groups: 5.5—6.4 and 6.5—7.4 years. The first group will be called further on the younger and the second the older one.

As shown by the analysis, girls of the same calendar age as boys are advanced further in development (on an average they have more permanent teeth). This result is interesting because differences of sexual dimorphism in the newborn age and in the period beginning with pubescence are pointed out, as seemingly indicating that 2—7 years old children exhibit no differences direclty connected with sex. In the light of the present investigation this is of course inexact in respect of a number of traits. It results from the requirement that at this age different standards should be applied for boys and girls.

Judging by the number of erupted permanent teeth, the group of children originating from exogenous families is more advanced in development, than in the endogenous gruop (with the exception of boys of the younger group). If, however, town children and those from the country are compared separately it appears that children from exogenous families have more teeth in the group of younger town girls and in that of older girls from both environments. Country girls from the younger group and boys from both environments of the younger group exhibit a greater number of teeth in endogenous than in exogenous families.

At the same time it should be borne in mind that town children of all the examined groups (excepting of younger boys from endogenous families) have a greater number of erupted teeth than the country children of corresponding sex, age and endo- or exogenous group. Thus, in principle, town heterozygous boys and all girls, irrespective of their age, exhibit accelerated development. Younger children of both sexes from the country showed, in the case of heterozygosity, a retarded development, whereas in older ones it was accelerated as compared with that of homozygous children.

The use of the terms hetero- and homozygous children is based solely on the assumption that parents originating from the same environment are — according to statistical chance — more similar to each other genetically than parents from different populations (with different gene pools).

Therefore, the results obtained may be interpreted as follows: as compared with homozygous children, younger children of the heterozygous groups (more susceptible to environmental factors) exhibit retarded development, while older children of the heterozygous group show accelerated development in the environments studied. Up to date retarded development was observed in heterozygous groups, the latter, however, came from the poorest strata of the population (mulattoes). This phenomenon, however, seems to be dependent both on the deveopmental period and the conditions of life.

A szerző címe: Dr. Napoleon Wolański

Author's address: Doc. Dr. Napoleon Wolański
00-330 Warszawa
ul. Nowy Swiat 72.
Pałac Staszica, PAN