GENETICAL MORBIDITY OF CHILDREN FROM FIRST COUSIN MARRIAGES

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Summary

Within a north Swedish geographical isolate all marriages between first cousins existing on 1st September 1947 were registered. The data comprise 34 such unions with 218 live-born children and 32 random control families with 165 children.

The fertility of the cousin parents agreed with the average of this population. The total mortality of the cousin and control children was about the same. The incidence of spontaneous abortions and stillbirths was lower in the cousin families.

Cousin parents tend to produce more intellectually defective and less gifted children than random control parents. The total genetical morbid risk for children from first cousin marriages was considerably increased, i.e. about 16 per cent against about 4 per cent for the control children. A method to estimate the prevalence of deleterious autosomal recessive genes in human populations is outlined. Tentative calculations indicate a minimum of three such genes in heterozygous condition per individual. The total number of different autosomal recessive genes (loci) with recognizable major detrimental effect in homozygotes in this population was estimated at between 150 and 450. These two latter estimates are only partly based on precise data, and should therefore only be accepted with great caution.

It should be emphasized that the results refer to a specific population. Pending further data from other populations they should not be generalized uncritically.

The paper has been published in "Annals of Human Genetics" (London) 21,191,1957.