UNDERSTANDING THE GENETIC CONSTITUTION OF MAN THROUGH THE STUDY OF CONSANGUINEOUS MARRIAGES

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Summary

Certain basic problems in human genetics can best be attacked through the study of consanguineous marriages. (1) A recessive genetic background can be inferred if an ailment has an increased incidence among children of related persons. (2) Knowledge about the mode of action of genes could be broadened; for example, if there are recessives that cause lethality in early embryonic stages, they might be demonstrable. Also, the frequency of genetically controlled stillbirth, low mentality, poor health, sterility, etc., could be observed. (3) Estimates could be made of the maximum number of ailments which could be found under given conditions of examination, and, thus, of the minimum number of observable gene loci. (4) Estimates of the average number of abnormal recessive genes carried heterozygously per person would be refined. (5) The risk of having abnormal children in consanguineous marriages would be accurately measured.

A number of consanguineous marriages have been ascertained at the time of marriage. Data on their subsequent family histories have been applied to analysis of the above problems.