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指纹遗传的双生子研究1.指纹峭数的研究

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摘要 采用卵性鉴定准确性在98％ 以上的双生子法对指纹岭数的遗传特性进行研究，通过对26对MZ及24对。Z的指纹崎数分析，发现男女的TFRC分别为132.96士丸. “和114.00士40.20、平均值为127.14士46.23, AFRC分别为191.50士87.66及165.60士82.34，平均值为180.32士85.57, AFRO与TFRC呈正相关，其回归公式为v＝1.78X一41.89。研究表明，TFRC与AFRC在MZ对间的相关系数近于1.0，明显高于DZ对间约相关系数。说明晴数1的形成受到遗传因素的作用。作者认为控制晴数遗传的是一对Ss因子，表现为常染色体中间型遗传。当个体为SS因子型时，TFRC及AFRC分别＞150, ＞ 230;当为Ss因子型时，TF RC及AFRC分别为76-150和90--230;当为ss因子型时，TFRC及AFRC分别为C75, ‹900算得S因子频率为0.6150,s因子频率为。.3850。此假说得到了Hardy-Weinberg定律、R生子法及15个家族90例成员家系调查的初步验证。

关键词 双生子法；指纹崎数；Ss因子中间型遗传

分类号

A Twin Study on the Heredity of Finger Prints I, The Study on the Ridge Count of Finger Prints

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Abstract

The heredity of the finger-print ridge count was studied with a twin method in which the diagnosis of the twin zygosity included 11 items. The accuracy of the diagnosis is :pore than 98%. 26 pairs of monozygotic twins and 24 pairs of dizygotic twins were studied. The results showed that the total finger ridge count (TFRC) was 132.96151.46 in males, and 114.00±40.20 in females, being 127.14164.23 in average. The absolute finger ridge count（AFRC)was 191.50士87.66 in males, and 165.60士82.34 in females, being 180.32士85.57 in average.AFRC had a positive correlation with TFRC, r＝0.9405, Y＝1.78X-41.89. The correlations of AFRC in monozygotic twin and TFRC in monozygotic twin were 0.99,and in dizygotic twin were 0.63 and 0.64一Theresults did not support Bonnevies' and Holt'shypothesis on the ridge count. The authors considered that the ridge count of hinger print wasdetermined by a pair of factors— Ss：The model was intermediate inheritance：SS：AFRC＞230, TFRC > 150; Ss: AFRC 90-230, TFRC 76--150; ss: AFRC c 90, TFRC c 75. S factorfrequency was 0.6150, and s factor frequency was 0.3850. This hypothesis had been supportedby the following studies：Hardy-Weinberg law, a twin study and family investigation tivhich included 90 persons in 22 families.

Key words Twin study Ridge count of finger print Ss factor intermediate inheritance

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