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Characterization of Constitutive Heterochromatin, in Particular of Fluorescence Polymorphisms, in a Central European Population

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ABSTRACT Polymorphisms of constitutive hetrochomatin, in particular fluorescence polymorphisms after QFQ-staining, show variations in size and staining character with unequal intra- and interchromosomal distribution in the chromosomes 1, 3, 4, 9, 13, 14, 15, 16, 21, 22 and Y, revealing significant patterns. In some cases, significant differences are found in size as well as in fluorescence, according to the type of cell culture analysed (amniocytes or lymphocytes). Within the individual sizes, the findings for flurescence are almost equivalent in both groups. Complete pericentric inversions show a maximum in chromosomes 4. The majority of polymorphisms in the acrocentrics 13 and 22 for p11.2 and in 15 and 22 for p13. Fields of application show analyses of polymorphisms of constitutive heterochromatin in twins and triplets demonstrating discrepancies in dizygotics and trizygotics but identical polymorphisms in monozygotic twins. Case presentations deal with proof or exclusion of percentage on the basis of comparison of polymorphisms of the constitutive heterochromatin.

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