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Association of the Chromosomal Breakpoints in Reciprocal Translocation

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KEYWORDS Reciprocal Translocation. Chromosomes. Matrix of the Chromosomes. Breakpoints in the Arms. Sex of the Carrier.

ABSTRACT Reciprocal translocation involves break and exchange of the chromosomal segments between two non-homologous chromosomes. It is aimed to report the association between the breakpoints in the chromosomes and the clinical conditions and the sex of the carrier. The present study has analyzed the data from 42 carriers and there were 17 male and 25 female carriers. For the total sample, it was observed that 25 were in bad obstetric history; 25 chromosomes belonged to C group; chromosome 1 was involved 6 times with 2,3,9,14,15; the formation of the translocation between the long arms (q;q) was in 21 and the breakpoints in the long arm were 59. Bad obstetric history was associated to C group chromosomes in 15 and the long arm combinations were seen in 12 and the breakpoints in it were 29. In the female, 15 with bad obstetric history were carriers; C group was seen in 18 and in 11 it showed the association to bad obstetric history; the long arm combination was noted in 13 and in 8 it was in bad obstetric history; breakpoints in the long arm were 37 and 22 times it was in bad obstetric history and the translocation between 15q and 22q were associated to bad obstetric history. In the present study, the chromosomes and its arms and breakpoints and the clinical conditions were associated to female and bad obstetric history.