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Inter Chromosomal Effect (ICE) Resulting in Increased Abnormal Pregnancies in an Infertile Female with a Rare Robertsonian Translocation (13;21)(p10;p10) and SRY Gene carrier with 9 Consecutive Abortions

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ABSTRACT To provide information for the first time about an infertile female with a rare 45, XX rob (13;21)(p10;p10) and translocated SRY gene on X chromosome and to make an attempt to detect any inter chromosomal effect (ICE) if any in the production of increased number of abnormal pregnancies. One infertile female proband with rob (13;21) and 9 consecutive abortions and 4 unaffected family members were taken up for the study. The hormonal levels in the proband were measured by using Radio Immuno Assay (RIA). Karyotyping of G-banded chromosomes from leukocyte cultures for all the subjects were made and analysed using IKaros software (Metasystems). The DNA isolation and PCR analysis were undertaken for identification of SRY gene. The proband exhibited a karyotype of 45, XX rob (13;21)(p10;p10), her husband, father and brother showed 46, XY and mother had normal 46, XX. All the hormonal levels in proband were with in the normal range. She was positive for SRY gene and her mother was negative, her husband, father and brother were positive. The unaccountable increased number of abortions in the proband, an infertile female with a rare 45, XX rob (13;21)(p10;p10) and with a SRY gene may be due to the inter chromosomal effect (ICE) associated with rob itself or due to the presence of SRY gene, or may be due to the combined effect of both.