Structural chromosomal abnormalities in couples in cases of recurrent spontaneous abortions in Jilin Province, China


Andrology Laboratory, Department of Urology, The Second Hospital of Jilin University, Changchun, Jilin Province, China

Corresponding author: M. Zhang
E-mail: zhangming1982jdey@126.com

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ABSTRACT. Recurrent spontaneous abortions (RSAs) occur in approximately 15 to 20% of all clinically recognizable pregnancies. Structural chromosome abnormalities result in increased risk of pregnancy loss. Parental chromosomal abnormalities are an important genetic cause of RSAs. Some cytogenetic investigations have been performed in various countries and regions to determine the pattern of chromosomal abnormalities in parents with RSAs. The aim of this study was to report the prevalence and type of structural chromosomal abnormalities in couples in cases of RSAs in Jilin Province, China. The prevalence of structural chromosomal abnormalities in these couples was 2.98%. The number of female carriers with balanced chromosomal aberrations significantly exceeded that of such male carriers, and the ratio of female/male carriers was approximately 2:1. The number of abortions in the case of female carriers was more than that for male carriers before the structural chromosome abnormality was diagnosed. This indicates that genetic counseling for couples with structural chromosomal abnormalities should consider the gender of the carriers.

Key words: Recurrent spontaneous abortion; Reciprocal translocation; Robertsonian translocation; Pericentric inversion; Genetic counseling