The international Academy of Human Reproduction

17th World Congress of the Academy of Human Reproduction

15–18 March 2017

Rome, Italy

TITLE

CHROMOSOMAL ANOMALIES IN COUPLES WITH RECURRENT PREGNANCY LOSS (RPL)

AUTHOR/S

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ABSTRACT

Context:

Chromosomal anomalies revealed in 2-5% of couples with RPL. Unbalanced form of structural chromosomal anomalies, transmitted to embryos, can cause pregnancy loss.

Objective:

Detection of frequency and types of chromosomal anomalies in couples with RPL and no pregnancy and delivery with abnormal fetus.

Methods:

Detection of karyotype in peripheral blood lymphocyte culture (G-banding).

Patient(s):

112 couples (aged 20-44yy.) with > 2 miscarriages (I trimester) were investigated in 2011-15.

Intervention(s):

Collecting of comprehensive family and personal anamnesis, detection of anatomic, hormonal, immunological, thrombophilic and genetic causes of RPL.

Result(s):

Pregnancy and delivery with abnormal fetus were not detected in any cases; also karyotypes of previous abortuses were not investigated. Chromosomal anomalies in one parent were revealed in 9 cases (8%). Balanced reciprocal translocation was detected in 4 men and 2 women, Robertsonian translocation – in 1 man. 2 from 5 men with translocations were subfertile. Total frequency of balanced translocations was 7 (6,25%). One woman had pericentric inversion of chromosome 9 and one woman – mosaic karyotype 46,XX/47,XXX. Mean number of previous miscarriages in common group of RPL was 3.15 and in the couples with chromosomal anomalies – 2.9.

INSTITUTE

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Conclusions:
In the couples with RPL and no history of delivery with abnormal fetus, when chromosomal status of previous miscarriages is unknown, considerable frequency of balanced structural chromosomal anomalies indicates on reasonability of karyotyping of such couples, especially when male partner is subfertile. The reproductive risks (including miscarriage) are influenced by the size and the genetic content of the rearranged chromosomal segments and the sex of carriers.