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Cytogenetics of Recurrent Spontaneous Abortions: A Study of 250 Products of Conception

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ABSTRACT The study conducted on two hundred fifty (250) Products of Conception samples to investigate the cytogenetic cause of recurrent abortion. Products of Conception samples are studied using conventional method Karyotyping and FISH is performed when samples failed to grow in culture. Chromosomal anomalies were observed in 31 cases. The researchers observed autosomal trisomy and monosomy including monosomy X. Mosaic cell lines were observed with XY/XYY, XX/XX,+21 and XY/XXY,+18 chromosome complement. A case of 46,XX,der(13;14)(q10;q10),+14 and a triploidy was detected. The rate of chromosomal anomaly as per the maternal age was: 50 percent in 30-35 years and 30 percent in 25-30 years. A statistically significant difference was observed in the frequency of abnormalities in recurrent abortions as compared to spontaneous abortions ($p<0.05$). The cytogenetically normal cases need to be study at the submicroscopic level for genome wide analysis to unravel genetic aberration responsible for the abortion and thus useful for recurrence risk assessment and preimplantation genetic diagnosis.